THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

MARCH, 1847.

ART. I.—*The Diseases of the Army of Occupation in the Summer of* 1846.
By H. R. ROBARDS, M.D., of Memphis, Tennessee.

The following abstract from notes taken while the writer was acting as Surgeon to a regiment of volunteers from Tennessee on its march to Mexico, and during a few weeks while stationed at Matamoras, is presented to the profession, in the hope that its details will be found interesting and useful. The notes were penned in camp, and my short military experience has taught me that the camp is not a place for easy or finished composition.

As early as May last, in anticipation of a call for volunteers for the war then just breaking out with Mexico, the stirring notes of the fife and drum were heard in Memphis; in a few weeks, five companies were made up, and remained in organization until the final lots were drawn in June, when only three were admitted into service.

The requisition made upon Tennessee was for three regi-

ments—two of infantry, and one of cavalry; the latter, to which I was attached, was ordered to rendezvous at Memphis by the 15th of June, or as soon thereafter as possible. This regiment consisted of three companies from East, five from Middle, and two from West Tennessee. I am particular in locating the different companies, in order to show the varying influences of a southern climate upon constitutions from different sections of the State.

Three companies only had arrived at Camp Carroll, the place designated for the encampment, two miles east of Memphis, on the day appointed; on the 24th of June, the whole number were there; and on the 27th of July, we took up the line of march for Mexico; the entire distance, about fifteen hundred miles, to be traveled by land.

Our camp near Memphis, so far as could be observed, was was free from local causes of disease; the situation was elevated, and both men and horses were furnished with excellent water from a single large spring. The weather, during a greater portion of the time, was excessively warm and dry, and the roads and whole encampment disagreeably dusty. For the first three weeks after the arrival of the troops at this place, we had little else, in the way of disease, to contend with but diarrhœa, intermittents, colic, etc., brought on chiefly by exposure and imprudence in diet. The companies from West Tennessee, being acclimated, suffered least; two-thirds of the men from other parts of the State were attacked with one or the other form of these diseases soon after their arrival. The treatment was simple, and only varied with the cause. If diarrhœa, and the cause imprudence in diet, a dose of castor oil relieved most of them; if it did not, broken doses of calomel, ipecac. and morphia invariably put a stop to it. This was a favorite combination with me in this disease, and throughout the entire march never failed, when the patient could be restrained in his diet. The cases of intermittent fever were cured with equal certainty by administering *two doses of quinine, of ten grains each*, one given six hours before the chill, and the other two. As colic was often brought on

by gorging with indigestible food, emetics were frequently administered, and gave instant relief. If the indications did not call for this remedy, calomel and opium, followed by a brisk purgative, were given; and if, as is often the case in this disease, an operation could not be procured in time by purgatives, then I had recourse to an expedient which with me has never failed, and I have used it in numerous cases of obstruction from various causes: this is forcing large quantities of lukewarm water into the intestines by injection. If the obstruction is caused by impacted fæces, the water reaches them, they are moistened, and pass off. If it be partial hernia, as I have known in one instance, where a knuckle of the intestine is retained in the internal ring, the gradual and powerful pressure of the water draws the bowel out, straightens it, and thereby removes the obstruction. I have often been astonished at the immense quantity of water that can be forced into the bowels without the slightest injury to the patient, but often with the effect of affording instant relief.

About the 20th of June, a most troublesome camp disease broke out. I refer to measles, which, notwithstanding every precaution that could be used, remained among the men three months; there were not less than three hundred and fifty cases of the disease, and yet all recovered. The treatment adopted was chiefly expectant. Sometimes the patients took stimulating diaphoretics, and often during the march drank freely of hot whisky toddy, even while the fever was on, without any bad effects that could be perceived; *purgatives were decidedly injurious in any form.* Diarrhœa, which often occurred as a sequel to this disease, was sometimes obstinate, but yielded to external irritants, mucilaginous drinks, anodynes, etc.

About the first of July, a few cases of continued fever occurred in camp; but they were confined to one company, which was stationed in an elevated part of the encampment, and in which the usual degree of cleanliness was observed. This company was from a region in Middle Tennessee noted for its insalubrity; two of these cases proved fatal, in conse-

quence, I believe, of the dread of the hospital that existed in that company, which deterred the men from calling for medical aid until the disease had made considerable progress. The brain was the organ that suffered most, delirium being a constant attendant. The treatment consisted of cold applications to the head, blistering, alteratives, etc. One fact I observed in the management of this fever, which strikes me as worth recording; that is, that *quinine invariably aggravated all the symptoms.* If experience should prove this to be always the case, will it not go far to prove that the cause of intermittents and remittents differs from that of continued fever?

During the time we were at Camp Carroll, the companies from East Tennessee suffered most from diarrhœa, colic, and such other diseases as are brought on by exposure and imprudence in diet, their constitutions seeming as yet to resist the causes of fever in any of its forms. It will be remembered that East Tennessee is for the most part a high, broken and healthy section of the State. In the companies from Middle Tennessee there were many cases of remittent fever, at the same time that diarrhœa, colic, etc. were common. The two companies from West Tennessee suffered but little from any other disease except intermittent fever.

From the close proximity of the camp to town, and the freedom with which soldiers, when unrestrained, are known to indulge in every kind of dissipation, the number of cases of syphilis and gonorrhœa which I have to report will not seem extravagant, namely: twenty-three of the former, and eighty-four of the latter.

The first stages of syphilis were treated with calomel in combination with sarsaparilla; without waiting for the gums to be touched, this form of mercury was laid aside after a few days, and the cure completed by giving in full doses the proto-iodide of mercury, and sometimes the hydriodate of potassa. The latter was always used when the gums had been previously touched with mercury; dry lint or calomel was applied to the chancres, and iodine ointment to the buboes. The patients generally recovered in a few days.

Gonorrhœa was treated with equal success, by administering two parts of the comp. extr. buchu and one of balsam copaiba in teaspoonful doses three times a day, in the first stage; in the second, that is, after using the above four or five days, injections of a strong solution of nitrate of silver or acetate of lead were employed, and generally effected a cure at once.

On the 20th of July, our encampment was changed to the bank of the Mississippi river opposite Memphis. After this, we had but one or two cases of continued fever, while the intermittents and remittents assumed a much more malignant form.

But before I proceed farther, it may be as well to state that a little upwards of a thousand men, either belonging to or in some way attached to the regiment, came under the surgeon's care; out of which number, on the 4th of October, there had been more than twelve hundred cases reported. Of course, some of the men were several times on the sick list; but the case was never reported unless it was a different disease from the one previously treated; relapses were never reported the second time. This regiment, as I have before mentioned, consisted of volunteers from different sections of the State, of various professions and callings; many were educated gentlemen; many belonged to the respectable class of farmers and mechanics, and not a few were loafers. With all, the habits, customs, diet, etc. of a camp life were different from what they had before known. The sickly season was just approaching when they arrived at Memphis; the country through which they traveled was one of the sickliest in the United States. Is it wonderful, then, that so large a number of cases should have occurred? Is it not astonishing that only five had died up to the 4th of October, when I temporarily left the regiment? It will be admitted that this success was almost if not entirely unprecedented, and I attribute it greatly to the efficacy of a single remedy, quinine. This was our sheet-anchor, and, without it, my opinion is that our regiment, now by far the largest and most efficient in the service, would have been completely disabled.

From the accumulated experience of the profession, it is clear that quinine acts in some manner specifically upon the nervous system, producing, as I have lately seen, when given at improper times and in over doses, complete derangement of that system. May this not throw some light upon the vexed question as to the organ primarily affected by the remote cause of fever? If quinine cures fever, and the action of the article is specifically upon the nervous system, does it not follow that the cause of fever must act primarily upon that system? But I return from this digression to my notes.

I mentioned before that the remittent and intermittent fevers assumed a more malignant form on the bank of the river, but did not state that diarrhœa almost entirely disappeared from the camp, except when induced by drastic purgatives, which was so common an occurrence that we had to guard scrupulously against their use.

The symptoms that ushered in intermittent or remittent fever were very similar, and such as usually occur in that section of country. However threatening the premonitory symptoms might be, it was not often the case that medical aid was called for until the patient found himself shivering with a chill; then he was let alone until the stage of excitement passed off. If at this time the tongue, skin, etc. indicated a very disordered state of the secretory organs, a mercurial in some form, in combination with a gentle purgative, was given during the sweating stage; the kind of purgative to be given was always suggested by the nature of the case, the constitution of the patient, etc. Very often, indeed, they were not used at all, and the cure proved equally effectual. We usually commenced with the quinine eight or ten hours before the chill ought to return; ten grains were given, and repeated four hours afterwards; the third dose was given or not as the case seemed to require.

Ten grains of quinine I regard as a maximum dose, *if to be repeated.* I however frequently gave as much as thirty grains; but it was always when the case was seen for the first time a few hours before the chill was expected, and it constantly

kept it off. I prefer giving the remedy in ten grain doses, for the reason that its effects are always certain and it acts more effectually upon the skin, and not so frequently as an emetic as when given in larger doses. My manner of giving it was simply to mix it with water. To some this is a bitter, nauseous dose, and caused vomiting at once; then it had to be made into pills, but I think the solution much more effectual and rapid. The doses I have mentioned invariably put a stop to the chill, whether simple or malignant; but to guard more certainly against a return, we usually ordered five or ten grains, according to circumstances, every morning for three or four days. If, after the chill was checked, the secretions remained vitiated, an alterative was given at night, and repeated if necessary.

The cases of remittent fever were treated differently, and it is in the treatment of this disease that quinine is most frequently abused. It is very much the custom in the South, at this time, to administer quinine in all the stages of fever and in large doses. My experience justifies me in saying that such a course is not only unnecessary, but altogether unjustifiable. In my opinion, quinine should never be given unless the remissions are very distinct, and *never in the hot stage.* I usually, in this form of fever, commenced the treatment, after the first exacerbation had passed off, by administering a gentle purgative, in combination with some article that would keep up an action upon the skin without irritating the stomach and bowels. Ipecacuanha generally answered the purpose remarkably well. Most frequently the combination was of calomel and ipecac., given in broken doses, which course, varied as circumstances required, was kept up for two or three days, when the remissions usually became more distinct, and quinine had the effect of arresting the disease. These cases rarely continued on hand longer than four or five days.

There are some other diseases which many southern physicians regard as having a malarious origin, and treat indiscriminately with quinine; I allude more particularly to dysentery and diarrhœa. Now, I have not found such practice judicious,

but, if I mistake not, have seen very injurious consequences result from it. But when these diseases assume, as they sometimes do, a periodical form, then quinine, in combination with morphia, is the remedy. I should never recommend it in these diseases unless they did assume such a form. This combination I have found exceedingly useful in the treatment of other diseases attended with the nervous irritability very common in the fevers in the South. The fevers on the Rio Grande at this time are so constantly attended with disordered stomach and bowels, that the morphia is indicated in almost every case requiring quinine.

As I before observed, our regiment took up the line of march on the 27th of July. We were under the necessity of leaving twenty-five sick men at the hospital in Memphis; most of them, however, were convalescent and followed in a few days. The direction of our march was a little south of west, passing entirely through Arkansas from north-east to south-west, and through the whole of Texas in the same direction. A geological and topographical history of this country would be a valuable and interesting work. My duties in another capacity were too arduous to allow much time for such investigations. From Memphis to Little Rock, the capital of Arkansas, the road passes through a low, flat, marshy country, pregnant with local causes of disease; and our troops suffered more, perhaps, in performing that distance of one hundred and fifty miles than on any other portion of the route. The weather was excessively warm, the roads dusty, and the water disgustingly bad; this was felt most severely in the Mississippi swamp, a distance of forty-five miles. Here, exposure to the sun, bad water and imprudence in diet brought on many cases of severe diarrhœa; the form of fever was principally malignant intermittent. I found it necessary not only to give as much as thirty grains of quinine at a dose, but to assist it with stimulants, external irritants, etc. Congestion was the symptom most to be feared, and there was no time to "prepare for quinine;" it must be given at once, and boldly given, or the patient was lost. It is astonishing how soon the worst cases

recovered. Our conveniences for transporting the sick consisted of an ambulance fixed upon springs, and as many common wagons as were required. A great many preferred remaining on horseback, on account of the closeness of the wagons and the extreme heat. Measles on this account gave us much trouble; but notwithstanding all these inconveniences, we arrived at Little Rock in good time and without the loss of a man.

On this route an accidental case of surgery occurred, which, from its novelty in one particular, may be worth mentioning: A soldier, in taking a carbine from among some bridles and saddles, accidentally discharged it, the ball taking effect upon his comrade, who was standing so near that his clothes were set on fire. It entered the anterior inferior part of the axilla, ranged upward, and passed out at the anterior edge of the scapula. Not being near at the time myself, the assistant surgeon, Dr. Washington, examined and dressed the wound. He reported to me that he thought the ball had passed above the axillary artery, fracturing the humerus at the head or neck. I had only time the next day to make a superficial examintion of the wound, which I did without taking the bandages off. I discovered that the bone was evidently fractured, but at what point I could not determine, in the situation in which the arm then was. Dr. Washington was left in charge of the case, and reported to me, a short time afterwards, that on a more minute examination, he had discovered that the humerus was fractured, not at the head or neck as he had at first supposed, but three or four inches below, near the insertion of the latissimus dorsi and pectoralis major muscles; the axillary artery had remained uninjured, and could be distinctly felt pulsating when the finger was introduced into the wound. Suppuration was free, and the wound healed about the time that the bone united. In this case, the ball passed below the artery, but what broke the bone so far from the place at which it entered I do not clearly perceive; there was no fall or jar of any kind except that made by the ball itself.

At Little Rock we remained five or six days, recruiting;

here the diseases assumed a milder form, intermittents being most common, and on the whole the number of cases was considerably diminished. Our march was now through a high, broken country, to Washington, in Arkansas, a distance of one hundred and twenty miles. The health of the regiment continued to improve until we crossed Red River, at Fulton, and encamped upon the edge of the swamp. Here my notes show a large increase in the number of cases of malignant intermittents and remittents, requiring even a more vigorous treatment than before. Congestive fever, in its worst form, prevailed at this time; remittents were also more obstinate, and required a more liberal use of mercurials. As the sick had to be hauled, these were given invariably at night, and in every case of fever where there was a remission, quinine was given in the morning, and repeated once or twice if necessary, regardless of the effect of the purgative given the night before. The condition of the bowels was attended to after the fever was broken, and quinine would do this whether the bowels were acted upon or not.

It may be worthy of remark, and I noticed it in a hundred instances, that though intermittent or remittent fever often preceded measles, it never accompanied or succeeded it during the march; diarrhœa, on the contrary, almost invariably followed it. The number of cases of fever occurring during the march through Texas was immense; this may be attributed in a great measure to exposure to the rays of an ardent sun during the day, and encamping upon the marshes and swamps of creeks and rivers at night. In the prairies, the heat of the sun was most intense, and was especially oppressive to persons from the North.

About the first of September, many cases of jaundice occurred; this was often though not always preceded by an attack of fever. The complaint was never serious, but excessively annoying to the patient, in consequence of the languor and general feeling of indisposition which it induced. It was almost invariably accompanied by a ravenous appetite. An emetic was given in the onset of the disease; this was fol-

lowed by a brisk purgative, and then vegetable tonics were relied on to effect the cure. This course I persevered in for some time, but the cases did not recover as rapidly as we like to see them in the army. Another remedy must be sought for, more certain and rapid in its effects. Iodine struck me as coming nearer to fulfilling all the indications than any other I could think of, particularly the proto-iodide of mercury. This was given in the form of pill, in combination with rhubarb and aloes, twice a day, each dose containing two grains of the proto-iodide. My expectations were more than realized; indeed, it acted like a charm, and I had no further trouble with the disease.

I have now in a hurried and rather superficial manner referred to all the diseases we had to contend with in large numbers; of course there were many other isolated cases of rheumatism, dropsy, neuralgia, paralysis, etc., which recovered under the usual treatment. In giving the treatment of the different diseases encountered, I have left out all such remedies as are used merely as auxiliaries, and confined myself to such as were mainly relied on. Indeed, on a march through a wild country like that through which we passed, where both sick and well had to move at the sound of the horn in the morning, there was no time nor opportunity allowed for dealing in those minor remedies, so often used in domestic practice, more with a view of amusing the patient than with a hope of benefiting him.

Three deaths occurred on the road, one from each section of the State. No perceptible difference could be observed in the number or violence of the cases in the different companies after getting fairly into a southern climate, for there cannot now be found three men from any company who have not been under the care of the surgeon.

At Lavacca, a small town on the Matagorda Bay, now used as a depot for one division of the army, the regiment remained stationary eight or ten days; here my own health became so feeble that I obtained permission to go on to Matamoras by water. On the first of November the troops crossed

the Rio Grande, and encamped on the bank of the river five miles above town.

Here the diseases have been chiefly of an intermittent form, accompanied in almost every case by gastric and intestinal derangement, and, owing to this, more difficult to treat than heretofore. Quinine alone almost invariably vomits; but rarely ever does so in combination with morphia, particularly if the precaution is used of applying a mustard plaster over the epigastric region at the time it is given. Owing to the frequent changes in the weather, relapses often occur, and the stage of convalescence is always protracted. Mercurials are often indicated, and are used with great advantage.

December, 1846.

ART. II.—*Medical and Obstetrical Cases.* By R. L. SCRUGGS, M. D., of Germantown, Tennessee.

PNEUMONIA. May 1st, 1846. Visited G. F., aged about 23 years, in Upper Mississippi; found him delirious, having been attacked with pneumonia of both lungs four days previously, for which little or nothing had been done. His pulse being 120 in the minute and tolerably full, skin dry and hot, and head much affected, the result of want of due arterialization of the blood, I determined to use the lancet. This I did cautiously, and finding, after I had taken a few ounces of blood that he appeared to sink under its loss, I closed the orifice. I then cupped him extensively over the chest, and applied mustard mixed with hot vinegar over the chest, and upper and lower extremities, which made not the slightest impression. I then mixed together equal parts of hot oil of turpentine and vinegar and rubbed the mixture upon the extremities and chest; immediately after which I applied sinapisms to the extremities and a large blister over each lung. These having made an impression very soon, the sinapisms were removed and the blisters permitted to remain until they drew well; after which, for several days, the blistered surfaces were dressed

with savin cerate, and whenever they showed a disposition to heal the blisters were reapplied. I gave him a solution of mur. ammon. and tart. emetic every hour, in teaspoonful doses, to be increased or diminished according to the effect produced upon the stomach. On the 3d day after I first saw him I gave an expectorant of lobelia, squills, and seneca; gave blue pill grs. v., night and morning from the commencement, and continued it until its constitutional effects were discoverable. This, with a little Dover's powder to prevent the medicine from running off by the bowels, and warm teas to promote diaphoresis, with abstemious diet, &c., constituted the treatment.

This patient had been delirious for fifty-six hours before I saw him, and remained so for twelve hours afterwards. On my first examination I found the lungs filled from their bases to very near their apices; the patient's breathing was very rapid, of course, and that dull redness of the cheeks peculiar, I believe to this disease—the effect of venous congestion, or a languid circulation in the capillaries—conspicuous at first sight. He soon recovered, notwithstanding all the unfavorable appearances, and is now in perfect health.

Rupture of the Uterus. Visited Mrs. B., in her fifth or sixth labor; found her with a dull, inexpressive, and sunken eye; countenance anxious and dejected; abdomen so exceedingly tender that she could not bear to have it touched. I found an irregular practitioner in attendance, with several old women, who informed me that the patient had had occasional pains, resembling labor pains for three weeks; but that she had been in actual labor for three days; that the head had been the presenting part originally, but that they had attempted to "push it up and turn," in which efforts they had succeeded in getting hold of one hand of the fœtus, at which they had "pulled with all their strength without being able to move it an inch;" that the pains had been strong up to 12 o'clock the night before, at which time they had ceased altogether. Upon making an examination per vaginum, it was found that the child had receded entirely out of the reach of

the finger. The man in attendance, told me that he had given large and repeated doses of ergot, and pulled hard at the *hand* of the fœtus during the violent contractions of the uterus brought on by the ergot.

It was clear to my mind that the uterus was extensively ruptured, and that the poor woman had been sacrificed by the ignorance of those who attended her. Notwithstanding the pulse was quick, irregular and very feeble, and the respiration hurried, labored and painful, I determined to turn and deliver, believing it to be the only possible hope. I gave her a large dose of morphia, from the effects of which she slept about three quarters of an hour. Immediately after she awoke, I passed my hand into the peritoneal cavity, without feeling the uterus, and with some difficulty disentangled the fœtus from the intestines and omentum by which it was surrounded. I got hold of the feet at length, and brought them down, but was compelled to use very considerable force; as the uterus which was completely ruptured, had no power to aid in expelling the child. As soon as the head reached the superior strait, I found that it could not be made to descend farther, and soon ascertained the cause to be preternatural enlargement, the result of dropsical effusion within the cranium. I immediately passed up a bistoury, and made an incision just above the left ear, the face of the fœtus looking to the symphysis pubis, and thus evacuated a large quantity of water; after which, the head, enormously enlarged by dropsical effusion, passed without difficulty. The placenta was not half its usual size. I had a bandage well adjusted, gave the patient a full dose of morphia, left directions to keep her perfectly quiet, and departed under the impression communicated to her husband, that she would die in the course of the day. She died the next morning.

Polypus of the Uterus. The next case that I shall present, and to me by far the most interesting, is one of Polypus of the Uterus.

The first time I was called to visit this patient, a negro woman about 46 years of age, was in the spring of 1845.

The history that I then received of the case was as follows: About two years previously when it was thought to be about the time her menses ought to cease, she was attacked with violent menorrhagia. The loss of blood was so great, at times, as to threaten immediate death. A skilful physician was called in, who used the ordinary remedies for suppressing this kind of hemorrhage, and she appeared to do pretty well for a short time; but the hemorrhage returned again and again, until she was worn down to a mere skeleton, and all hope of her recovery was lost. For a long time her mistress had not sent for the physician, but kept ready a quantity of acet. plumb. and opium, with which the hemorrhage was easily controlled.

By the advice of my friend and preceptor John R. Frayser, M. D., of Memphis, I applied a blister over the sacrum, and put her upon the use of the infusion of secale cornutum, mineral tonics and a generous diet, and flattered myself for a time that, with these simple means, I should effect a cure; but I soon discovered my error.

Finally, as it had been neglected before, I determined to make an examination to see if possible what was the source of this obstinate hemorrhage. Accordingly in September last proceeding to explore the vagina and os tincæ, Dr. Frayser and myself satisfied ourselves of the existence of a polypus attached to the cervix. The cause was now clear enough. I executed its removal in the following manner:

I used a double silver canula and a waxed thread of a size sufficient to fill accurately the instrument; tying one end of the ligature to one shoulder of the canula, and passing the other end through both barrels, leaving a loop at the other extremity, and two feet of the ligature hanging out, I took the instrument in my left hand and with my right encircled the pedicle of the tumor without much difficulty. Then drawing tightly upon the end of the ligature that hung out with my right hand, while with the left I gave to the point of the instrument the proper direction, to secure the thread around the neck of the tumor as near its attachment as possible, I secured the ligature to the other shoulder of the instrument, and

the operation was completed. This was on the first day of October last. I visited the patient the next day and tightened the ligature, and from the extremely offensive smell, I concluded that the circulation in the tumor had been completely cut off. On the next day the instrument, tumor and all came away together, it being only about 48 hours from the time the ligature was applied.

I had the parts well cleansed with a solution of chloride of soda and infusion of chamomile, using them alternately for several days, until the parts ceased to emit an offensive odor. I then put her upon the use of the prussiate of iron, ordered a generous diet and gentle exercise in the open air, as soon as she was able to walk out. She recovered rapidly, and has menstruated regularly ever since, notwithstanding she says she is 48 years old and has given birth to twelve healthy children, nine of whom are now living; she has perfectly recovered her health, and may yet have several children. A case occurred in Cumberland county, Virginia, where a lady, at fifty-five years of age, gave birth to two fine boys. Other similar cases I believe are on record.

Prof. Dewees in commencing his article upon this disease, says: "This disease of the uterus, the author has never seen, he is therefore under the necessity of drawing his account of the polypus from the experience of others." And again, he remarks: "It would seem to be fairly presumable that this disease is of more rare occurrence in this country than in Europe, since, in the practice of the gentlemen just named, (Levret, Denman, and Clarke) many cases have occurred, while in this, the experience of a number of gentlemen whom I have consulted, has not furnished one."

I am inclined to believe that this disease is of much more frequent occurrence in this country than is generally believed, the opposite opinion obtaining, probably, from the fact that it is not looked for. An examination ought always to be made in obscure cases of uterine disease, since in affections of the kind just described it is clear that nothing but an operation can rescue the patient from the grave.

January 19th, 1847.

ART. III.—*Intermittent Fever, its Phenomena, Peculiarities, Types, and Treatment.* By T. B. GREENLEY, M.D., of West Point, Ky.

Intermittent fever was more than usually prevalent in this section of country during the past fall; in fact, comparatively few persons escaped the disease, which made its appearance about the first of August, and continued till some time in November.

The portion of country to which my practice is mostly confined is comprised principally of the bottoms of the Ohio and Salt rivers and Knob creek, together with a section of country called the *hills*, lying back a short distance from the Ohio river. This last mentioned tract of country is interspersed with a great many ponds or sinks, filled with water, which never go dry. These sinks or ponds are formed, it is supposed, by the caving in of the limestone rock which underlies this region. These ponds appear to be increasing every year, and affect the health of the country in their vicinity to a serious extent.

While there was a great increase in the number of cases of intermittent fever in this section during the past season, the disease assumed, if possible, a greater variety of forms. I have had to deal with the quotidian and double quotidian, the tertian and double tertian, the quartan and double quartan, the quintidian, weekly, malignant and simple intermittent, together with their numberless complications. The malignant form of this disease has, this season, like the simple variety, manifested itself in more than the usual proportion of cases; and likewise has presented a great variety of phenomena. Most commonly, however, it confined itself to the tertian type.

I well recollect the first case of this disease that came under my treatment. When called in, the patient was laboring under the second chill. He was vomiting incessantly, bringing up considerable quantities of bloody mucus, having something of the appearance of patches of the mucous coat of the stomach after death from inflammation and softening. He

was cold up to his hips, as well as on the surface generally; suffered with great thirst, and complained of being too warm. He was perfectly in his senses, and told that he was dying. In fact, he looked very much like a dying man. There was no time to be lost. I had two boxes of mustard made into plasters, and covered him pretty well up with them, allowing them to remain on until they completely reddened the surface. This had the effect of bringing on reaction to a considerable extent, and subdued the vomiting in some degree. We now capped him freely over the stomach, and applied a blister to the same region; the treatment entirely relieved the irritability of the stomach. In the mean time, we administered internally calomel, quinine and opium, in the form of pills, every two hours—the two latter articles in liberal quantities. This treatment proved successful, and the patient was up in a few days.

In nearly all the cases of the malignant form of intermittent fever which came under my observation the past season, great irritability of the stomach was present; and in many instances profuse quantities of blood were vomited. In fact, vomiting was the most formidable symptom we had to contend with in many of the cases. I soon found that the usual means employed to allay sickness at the stomach and vomiting were unavailing. My plan, in cases where obstinate vomiting was present, was to cup freely over the epigastrium, and if this did not succeed in arresting it, to apply a blister plaster over the same region. This treatment was adopted by myself in the first case of malignant intermittent fever that came under my observation last season, which I believe was the first that made its appearance in this region. It occurred in August. I continued to pursue this practice in all cases where the stomach was so much involved as to keep up constant efforts at vomiting. I found that it was useless to attempt to arrest this symptom by internal remedies, as nothing was retained. Occasionally it was checked temporarily by applications of mustard to the epigastrium; but to insure lasting relief, it was

necessary to produce permanent counter irritation; and this was effected by cups and blisters.

This plan, with the usual internal means for preventing the recurrence of the paroxysm, was employed not only by myself, but, I believe, by the other practitioners of this place, in all cases where great irritability of the stomach was present, and with very great success; I do not remember a fatal case of the disease within the bounds of our practice.

I had two cases attended with spasms, of which the following is a short account:

Case 1.—Mr. G., a middle aged man, of rather delicate frame and constitution, but generally enjoying tolerably good health, was attacked violently with his second chill on the 7th of September. When I arrived, a few minutes after he was taken, he was on the bed, springing from one side to the other, with his hands applied over his abdomen. Every time the spasm came on, he gave a convulsive scream; said the cramp was in his bowels, and produced the severest pain he ever felt; great irritability of the stomach was present. Large plasters of mustard were applied over the abdomen, spine and extremities; he was cupped at the epigastrium; and internally quinine and opium in free doses, combined with a small portion of calomel, were given. He was convalescent next day, and soon got well.

Case 2.—Mr. C., also of middle age, of strong constitution and robust habit, was attacked about daybreak on the 28th of September with his second chill. I saw him about twelve o'clock on the same day, when reaction was thoroughly established. There was great excitement of the circulation—pulse strong, full and frequent. He was delirious, every few minutes springing from the bed, screaming with cramp in his legs, but recognising you when spoken to in an earnest manner. I bled him from the arm to the amount of thirty-two ounces before any beneficial effect was obtained; the surface then became relaxed. A good dose of opium and quinine was given, with two grains of calomel, to be repeated at intervals of two hours until three doses were taken. The severity of

the spasms was greatly diminished by the loss of blood, and the delirium considerably abated.

Sept. 29. I saw the patient again this morning about ten o'clock; he was nearly well. I gave him a dose of cathartic medicine, and dismissed him.

The following is a condensed account of the case of a lady whom I was called to see on the 28th of September:

Case 3.—Mrs. D., aged about thirty years, was laboring under her second chill when I arrived. She vomited incessantly; complained of great pain in the uterine region, which was of a paroxysmal character, simulating exactly labor pains, but I learned on inquiry that she was not pregnant. Her hearing and vision were so impaired that she could not hear unless spoken to in a very loud voice, and though in the day, she contended that it was dark, and wished a candle lighted. The treatment was pretty much the same as in the preceding cases. I gave her opium and quinine freely, especially the former. Although she is a woman of weakly constitution and delicate health, and unused to stimulants, it required what was equivalent to six grains of opium to quiet her, and this was given her within four or five hours. Cups were applied to the epigastrium, followed by a blister.

Next morning about ten o'clock I saw her again. She was a great deal better; the vomiting had ceased; she was clear of pain, and convalescing rapidly. The next paroxysm was prevented, and she soon got well.

Case 4.—Mr. B., aged about thirty years, in rather delicate health, was taken with his third chill on the 10th of October. When I arrived, he was cold, and was vomiting and purging. He threw up large quantities of blood from the stomach. I cupped him freely over the stomach, and applied an extensive blister plaster to the same part. Mustard was applied to the extremities and spine; and as soon as the vomiting was checked, free doses of opium and quinine, with a small portion of calomel, were administered internally. This treatment was successful, but the patient was several days in recovering; owing to great debility, supposed to result from the loss of so

much blood by vomiting. It would be proper here to remark that the usual means were employed in the above cases, as well as all that came under my treatment, to guard against the occurrence of the next paroxysm. These means were preparations of cinchona, as quinine, ext. cinchonine and quinine; with opium; together with an avoidance of exciting causes.

I found it necessary to take blood from the arm in but a single case, that of Mr. C., above mentioned. Generally speaking, the circulation was rather languid, even after reaction had ensued. In the ordinary or simple form of intermittent fever, I frequently employed venesection with great advantage. The necessity for this practice of course was indicated in such cases by the usual symptoms demanding the loss of blood, such as great power of the circulation, hot and dry skin, pain in the head, hurried respiration, etc. Where there existed much irritability of the stomach, I usually administered the medicine in the form of pill, finding it more readily retained in this form than in that of powders.

I have used what is called the impure sulphate of quinine, or precipitated extract of bark, with great success in the treatment of intermittent fever. I give about as much again by weight of this medicine as of sulphate of quinine. It has appeared to me to have a better effect when combined with diaphoretic portions of ipecacuanha or Dover's powder. I usually preceded its administration by a purgative dose of calomel and rhubarb, four or five grains of the former and fifteen of the latter, where indications for its use were present. I think this medicine has an advantage over quinine, in its being more stimulating.

Quinine scarcely ever failed to arrest the disease, but in a large number of cases it returned in from one to three weeks from the time it was arrested. Some patients were troubled with as many as six or eight relapses.

I succeeded in producing permanent cures, in some cases, with Peruvian bark and carbonate of iron, taken for some time after the paroxysms were arrested with quinine. I have

also destroyed the predisposition of the system to relapse by repeating the quinine, or its equivalent, weekly, just as if the disease had been present.

There is some difficulty, however, in prevailing on some patients to adhere to a prescription of this kind, as they do not like to take medicine when they are not sick.

Arsenic could not be used with safety in many cases, owing to the presence of or tendency to irritation in the stomach and bowels.

February 10, 1847.

ART. IV.—*Modus Operandi and Effects of Quinine.* By DR. M. H FEE, Leatherwood, Lawrence county, Indiana.

Think not, reader, when you see this caption, that I design to explain the vis predilectio of the various organs of the animal economy, by which, as if by chemical affinity, one article of the materia medica is irresistibly drawn to a particular organ, while another article, by this organ, is repelled and forced to seek its affinitive somewhere else. If you come to this conclusion, I am sorry to inform you that you will be sadly disappointed. It does not belong to my province to say why the specific action of terebinthina is spent upon the kidneys rather than upon the heart; or that of secale cornutum upon the gravid uterus rather than upon the bladder; or that of the absorbed virus of cantharides, from a blistered surface, upon the kidneys and neck of the urinary vessel rather than upon the lungs; or why that of aloes should be spent upon the lower bowels rather than upon the upper. These are mysteries beyond my depth, and I leave them for others to speculate curiously upon, with the simple remark, that "they are so, because God made them so;" and here, for the present, our knowledge must rest. My business is to show the effects of quinine on the various parts of the system, and how those effects are produced; not why it affects particular parts rather than others. In the following pages, I design to establish, as

clearly as it is possible to do, short of ocular demonstration—1st, that quinine in small doses is tonic, and how this tonic effect is produced; 2d, that it is antiperiodic, and how this is effected; 3d, that in large doses it is directly sedative, and how these effects are produced; 4th, that it possesses anti-congestive properties, and how it removes congestion; and, 5th, that it possesses no narcotic properties.

Let me simply state that the following thoughts are the fruits of some years' patient investigation and close observation. I give them to the profession for what they are worth. I flatter myself that in the present state of medical knowledge with regard to this article, my observations will not be cast into the common pile of professional rubbish before they have had an impartial hearing. Now to the subject. I proposed—

1st. To establish that quinine is tonic in its effects. That it possesses tonic properties in an eminent degree, when administered in the proper doses (from one to two grains three or four times per day), is amply proved, firstly, by the return of nervous and consequently muscular strength, lost by previous indisposition; secondly, by the replacement of steadiness of brain and nerve, instead of the bedizened state of the former and tremulous state of the latter; thirdly, by the rapid and vigorous reestablishment of the digestive functions and peristaltic action of the bowels, by which perfect digestion and regular alvine dejections are restored; and, fourthly, by the increased power of the heart, by which the flagging and contracted pulse is converted into the full and soft. These various effects are produced by the stamina which is given to the nervous system by quinine, by which is prevented the return of those pathological conditions of the system which constitute disease. I mean particularly capillary congestion for want of nervous power. Quinine lends to the weakened nervous system the power to compel the various organs to perform their functions—to break down all obstruction—to overleap every obstacle. The thus renovated nervous system influences the heart to throw a greater amount of blood to the brain in a given time, by which its bedizened state is fully dis-

pelled. It now accumulates strength in an exact ratio with the increase of its proper nutriment. This increase of energy is then transmitted to the lungs, the consequence of which is increased powers of respiration, by which the oxidation of the blood is more perfect; the consequence of which is a still more wholesome aliment to the brain, enabling it to engender the nervous fluid in fourfold bounty, which it sends with electric speed to all parts of the system, revivifying and reanimating the broken down energies of the system. Thus they go on—brain acting on organs, and the latter on the former, till the health of the whole system is perfectly reestablished.

2d. I proposed to establish that it is antiperiodic. I need say but little on this point to establish what all concede. None, at this enlightened period of its history, are in doubt of its antiperiodic properties. But how this effect is produced there is perhaps not so much unity of opinion. Therefore, to some my thoughts, though perhaps not interesting in point of value, may be as a source of amusement. Let me, for the sake of being fully understood, give my views of the cause of periodicity of some forms of disease. I consider every form of periodic disease, as being *purely* nervous in its origin, and, frequently purely so, throughout its whole course.

The exciting cause of periodic disease, whatever it may be, makes its impression upon the nervous system. Frst, by prostrating nervous energy, which is usually called the first stage, or stage of oppression. This is the only stage in which the exciting cause may, properly, be said to act; the subsequent stages being the results of action of the nervous system, independent of the exciting cause. Second, by producing nervous *functional* lesion, the consequence of which is perverted, or suspended secretions. And, third, sometimes by producing nervous *structural* lesion, the consequence of which is, almost immediate death. Now if the first obtains, an intermittent will be the consequence; if the second, a remittent; if the third, the most rapid and fatal form of congestive disease; such as Johnson tells us of, in his "Diseases of tropical climates." Then, that a periodic disease may be produced, it

is necessary that the exciting cause be weak, or that the invaded system be strong. As a matter of course if the exciting cause meet with strong resistance, it cannot make so great an impression, and vice versa. Then periodicity is brought about by alternate preponderance of the exciting cause and the powers of the system. When the exciting cause begins to invade the system, it brings the powers of the system gradually under its control until it at last, almost, reigns predominant. The tyrant, however, holds his advantage but for a short time. The outposts are but driven in to cooperate with the main force, a sharp conflict ensues, and the enemy is repulsed. But he sees that he has made an impression. If he has considerable force and finds that he has made considerable impression, he will renew the fight in twenty-four hours. But if his forces are weak and the impression on his enemy in the former struggle but slight, he will postpone his next attack for thirty-six, forty-eight, or seventy-two hours. Thus the belligerents go on fighting periodically, until, from sheer necessity, the one or the other is forced to capitulate. Sometimes, however, the system, from force of habit, will fight its battles over and over again, when there is really no enemy in its territory; or, may be, it is a very prudent, warlike demonstration it makes to hold a conquered but subtle foe in subjection. One thing is certain: the system on these occasions is very careful not to uselessly expend any great amount of ammunition.

Pardon this digression; it was made for the purpose of making plain my views. Now to explain how quinine puts an end to hostilities: It always acts as an ally with the system, either as an ally of force or that of stratagem. As an ally of force, it assists the system by hourly joining detached forces to those of the system, commencing several hours before the expected attack. It urges the dispirited troops to strengthen their weakened fortifications, to rally their sinking spirits fo a gallant defence, to throw away encumbrance. In a short time, the united forces have made considerable improvement in their defensive structure; they now shout defiance to the

distant enemy. Presently the bugle of the advance guard of the enemy gives the signal of attack; their topographical engineers reconnoitre the allied forces' entrenchments; they see the bustle, animation and determination of the allied army; they report their observations to their commander, who orders a few shells to be thrown, abandons the conflict, calls off his forces, and proclaims the independence of his enemy.

Now to present quinine in the character of an ally of stratagem: He persuades his ally to assume the appearance of a dead army. Here they are, in pursuance of his instructions, all apparent feebleness; they show but little signs of life, less of resistance. General Quinine now retires behind the screen to observe the success of his stratagem. The enemy shortly heaves in sight; they form their forces in battle array; the bugle sounds the charge; they rush to the breastworks, and peer over them with malice in their eyes—when, lo! they behold a prostrate and apparently lifeless foe. They are too magnanimous, too tenacious of military etiquette, to dishonor their weapons by striking a fallen foe. They return and report their foe 'defunct.'

Need I add one word of explanation of this figure? It needs it not. I shall simply say that quinine, given in one gr. doses for seven or eight hours prior to the expected paroxysm, prevents it, by giving the system power to prevent the return of the various pathological conditions of the system which favor a repetition of the paroxysm. In large doses (twenty grains) immediately before the paroxysm, it prevents it by its quieting influence on the nervous system, which, according to my theory, renders the system noninvasive by periodic disease. This will be more fully explained under the next head. Morphine and the various preparations of opium, and also others of the narcotics, have the power of preventing the recurrence of periodic disease, though not to the same extent as quinine, because they do not possess equal anticongestive powers. To close this head, I shall draw the points of difference between the action of small and large doses of quinine, and how they, acting differently, produce the same effects. But few

words are needed. Small doses give tone to the nervous system, to prevent the return of nervous irritation, by actual gain of energy. Large doses have but little tonic effect; consequently we cannot attribute its antiperiodic effects to actual strength imparted; therefore we must attribute its antiperiodic powers to its quieting influence, by which all nervous irritation is kept down till the paroxysmal time passes.

3d. I proposed to show that quinine is directly sedative. The evidence I bring to bear on this point is, first, that when administered in doses of fifteen to twenty grains two hours apart for two or three doses, there is great diminution in the fullness and frequency of the pulse. I have often sat by a patient and felt his pulse sink from twenty to thirty beats in the minute, in the space of two hours, under the administration of this article; whereas, had I not given some sedative, the pulse would have remained stationary, or perhaps have risen. Second: When carried too far, that is, when the system is supersaturated with quinine, great prostration occurs, with small, rapid and weak pulse, scarcely audible motion of the heart, and anxious. hasty and imperfect respiration. These are positive proofs of its sedative powers. Another weighty proof in corroboration of this property is that one or two twenty-drop doses of laudanum will effectually relieve the prostration. Morphine, given in conjunction with quinine, greatly modifies its sedative properties, and has the effect of gaining the desired end with a less outlay of quinine. These sedative effects are produced through the power quinine possesses of lowering excitability by taking away or destroying the impressibility, to a great degree, of the nervous system. This view of the subject is favored by the great length of time required by a fully quininized patient to regain his usual impressibility and standard elevation of pulse. In its effects it appears to be nearly akin to tartar and digitalis.

4th. I proposed to establish that quinine is anticongestive. I establish this fact from the following observations, viz.: First, that a few full doses of this article will immediately effect great and permanent reduction of an engorged spleen. Second,

that a dull, heavy, aching pain of the liver, which is certain evidence of a congested state of this viscus, is removed by a few full doses of quinine. Third, that the pain always found in bilious fever, in the region of the kidneys, is quickly removed through the agency of this article. Fourth, that the scanty secretion of the liver is soon followed by copious bilious stools shortly after the administration of a laxative, when quinine has been freely used. Fifth, that the secretory action of the kidneys is reestablished, whereby a free and copious discharge of urine takes the place of the painful and scanty discharge of this secretion. Now, these anticongestive effects cannot be produced with small doses of quinine, unless congestion be the consequence of actual weakness of nervous energy. Let me here be understood. There are two conditions of the system in which congestion may take place: Firstly, where there is a weakened state of the system from previous disease, an actual lack of nervous energy to keep up the capillary circulation throughout the various viscera; and, secondly, where the nervous energy is normal, but the nerves are too irritable. The effects will be precisely the same, but the treatment is different. The former condition will require tonics and stimulants, while the latter will require something to reduce excitability. Quinine in small doses will be proper in the first condition of the system; but in the latter, mammoth doses must be given, combined with morphine. Quinine in small doses, in a weakened condition of the nervous system, gives power to the nervous system and through it to the circulatory vessels, to prevent stagnation in the capillaries. Where congestion arises from irritability of the nervous system, quinine in large doses acts not by lending power to the nerves to force the blood through the capillaries; but by quieting nervous irritability, it allows the spasm of the coats of the vessels to cease, and the circulation to be carried on normally by the ordinary power of the heart. I think I am now understood.

5th, and last. I proposed to show that it possesses no narcotic powers. Some late writers urge the following symptoms as evidence of its narcotic action. First, that when giv-

en in considerable doses, it produces ringing in the ears; partial deafness and blindness. Second, that it produces flushed face with fullness of the vessels of the head. I shall endeavor to account, in a more rational manner for these symptoms, than to attribute them to narcotism. The ringing in the ears, with partial deafness and blindness, are caused by the reduction of power the quinine effects in the nervous energy of the heart, by which less blood is thrown to the brain in a given time, consequently the brain receives less of its proper nutriment, which produces an anemic state of the brain, such as would occur in an excessive loss of blood. This is the work discernible, by being contrasted with the hyper excitement of the brain, just before, from the influence of fever. There is one fact which I can bring to prove the correctness of my position. When the brain is in this state, if the erect position be assumed, all the symptoms will be increased, but if the head be let down even with the shoulders, the symptoms will be ameliorated. The flushed face may be accounted for, in the same way that the injected eye, and pseudo-inflammation of the brain are accounted for, in excessive losses of blood. Though in complete quininism I have never observed this state of the face. Where it has been noticed, I presume the dose has not been sufficiently large to give play to its sedative properties. In full quininism, I have invariably found an exsanguine countenance, cold hands and feet, with overloaded heart, lungs, and large arterial trunks. In short, a want of power in the heart to carry on the circulation.

Heltonsville, Ind., Dec. 14th, 1846.

ART. V.—*Notes on Medical Matters and Medical Men in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

In my last letter I alluded to the lecture of Professor Dumas, introductory to the winter course of instruction in the Ecole de Médicine, as a discourse of great beauty and eloquence. So much of it as related to the life and services of

his eminent friend and associate, Bèrard, would probably be uninteresting to the readers of the Journal; but the conclusion of it presents views of great and general scientific interest. I propose to give a translation of the conclusion of the lecture.

In southern seas, remarked the distinguished professor, there are islands which slowly elevate themselves from the bottom of the ocean. Formed by polypi, these isles are visited by certain tribes of plants, and become the seat of an active vegetation; the remains of these plants collect upon the surface and form a soil, in which other races of vegetables spring up; animals and men seize upon them, at length, and the germ of a new empire appears upon the earth. It is curious to observe, that these corals direct incessantly and with unwearied energy their labors from within outwards, by which the land is made to encroach continually upon the sea. What peculiarity in their organization, what law governing their countless family, leads to results so favorable to conquest, that their works gain unceasingly upon the empire of Neptune? Do not lose yourselves in vain conjectures. We shall see that the sublime result is brought about by an agency simple in its nature and easily understood.

These polypi have need of calcareous matter to construct their dwellings; they find it in solution in the waters of the sea, and separate it in order that it may traverse their earthy tissue. This calcareous matter is rare within those immense bodies which elevate themselves from the sea, while it abounds without; and here, according to M. Forchammer, lies the whole secret of this providential form, of this eccentric tendency of their labors. Here is the part that mineral matter in general, that calcareous matter in this particular case, plays in the development of organized beings. Is not the spectacle which nature offers, in the sublime simplicity of her means, full of grandeur? Rain-water loaded with the carbonic acid of the air falls upon our limestone hills; it then becomes charged with carbonate of lime, reaches the Seine, is borne to the ocean, where the waves carry it away, and, ere long

seized by microscopic animals, it adds an imperceptible stone to the formation of the new empires which are preparing for future humanity.

The phosphate of lime constitutes the base of the skeleton of all the superior animals, and is found both in the tissues and liquids of their economy. Analysis detects it in the inferior animals, and in the plants themselves. The phosphorus which this salt contains is found in milk and analogous liquors, and figures in its turn in a mysterious manner in the composition of the cerebral and nervous substance. But phosphorus and the phosphate of lime are so rare in nature, that, struck with the difficulty experienced by the earth in furnishing it to plants, an illustrious chemist exclaimed, "Rome fell when Sicily, drained of her phosphate of lime, was no longer able to furnish the grain necessary for her immense population." It is necessary that this phosphate of lime shall return to the earth, and to insure this, what simple and ingenious means does nature employ! Collected from the soil by the plants, these phosphates pass into the herbivorous animals, and from them into the systems of the carnivorous tribe, where it is concentrated. From this moment, everything tends to disperse them. If the animal dies, a fly deposits its eggs in the flanks of the body, millions of larvæ are generated, which feed upon the flesh and blood, pursue the course of their metamorphoses, and soon taking wing, in their turn bear away and scatter in all directions the phosphates which they have assimilated.

It is not without an end that nature has ordained, that the putrid remains, naturally a prey to the insects which devour them, should be, to animals higher in the scale of organization, objects of profound repugnance. Repulsed by the aspect and by the odor of these infectious bodies, they witness afar off the part that is here accomplished.

If the insects everywhere disseminate the phosphates contained in the flesh of dead bodies, hyenas, jackals and dogs devour the bones, and in their turn play the same part. But this is not all. Left to themselves upon the soil, the bones

are gradually divided, and at length disappear. What new force intervenes to separate their elements?

According to my view of the matter, it is water, not pure, however—for in pure water phosphate of lime is insoluble—but water charged with carbonic acid—rain and spring water, that which everywhere moistens the soil. By the aid of this carbonic acid, phosphate of lime is dissolved, the bones crumble, and the last vestiges of animal life disappear. As you already know, it is this carbonic acid dissolved by the rains, entering into plants and decomposed under the influence of the solar rays, which forms their principal nourishment. Admirable mechanism, by which, according as the carbonic acid is consumed in the leaves of plants, phosphate of lime again becomes insoluble and is deposited in the vegetable tissues! What part is here played? One which is indispensable; for it is by it that all azotized matters resist the action of water, which tends to dissolve, to swell, and to separate them. It gives to our tissues their stability, renders our bones firm and unyielding, while it protects in the same manner by its presence the tissues of the plants.

Perhaps you may conceive that at the moment at which a molecule of carbonic acid is decomposed in a leaf—that at the moment in which the phosphate of lime held by it in solution becomes free—it is then that, seizing the albumen of the plant, those cloudy flocculi are produced which are the first origin of the cellules which one sees appearing every moment.

Return now and follow the air which penetrates the cells of your lungs; which is dissolved in your blood, there to burn the carbon which it contains, and reproduce the carbonic acid which plants constantly decompose. The venous blood will now contain carbonic acid, which is capable of rendering soluble the phosphate of lime. The venous blood will tend then, as we have seen rain-water does, to dissolve our bones, to swell and break down all our tissues, and all the cellules which compose them. Under its influence, the animal matter is carried away to be burned, in order to generate that heat which

is necessary for the system, and the phosphate of lime dissolved, in order to be evacuated by the urinary secretions.

Thus a drop of water charged with carbonic acid, and dissolving the phosphate of lime, struck by the rays of the sun—behold the life which commences! In a drop of venous blood saturated with carbonic acid, and wasting our tissues, from which it has removed their phosphate of lime—behold the life which is finished! In the plant, it is a cellule which is organized; in the animal, a cellule which is dissolved: in the former, carbonic acid is decomposed; in the latter, carbonic acid is reproduced: in one, phosphate of lime becomes insoluble; in the other, it is redissolved. And these feeble efforts people the earth and the seas with numberless beings, who embellish or animate its surface, who feel, who think, and ever bear testimony to the omnipotence of nature.

Shall I show you now sulphur traveling from one kingdom to another, rising from the seas with vapor into the atmosphere, returning from the air to the soil, in plants, in animals, and redescending by the rivers, which again transport it to the sea? How simple, and yet how efficacious and sure is the mechanism of all these mutations! The sea contains the sulphates which nourish the mollusca. The humors which they secrete, greedy of oxygen, convert these sulphates into sulphurets. The water of the sea liberates sulphuretted hydrogen; the air carries it rapidly away until it encounters the remains of certain plants, whose pores by a mysterious power oblige it to burn itself, and thus produce sulphuric acid. The sulphates from this moment are reformed. This sulphuretted hydrogen, which is discharged from animal and vegetable matter in a state of decomposition—from sewers, from the subsoil of our streets—which tarnishes all our pictures—this sulphuretted hydrogen is one of the most indispensable terms of one of those grand equations by which the balance of nature is preserved. Two millions of kilogrammes of sulphur are required annually by the population of France, and not less than ten millions of kilogrammes will represent the mass

contained in the whole of the organized beings that inhabit this portion of the globe.

The sulphates which the soil receives yield their sulphur to the plants, which in their turn furnish it to the animals; and in this way the earth would soon be exhausted of this element so necessary to the being of plants and animals, if the sea did not continually supply it. Admirable laws of nature, which incessantly array against each other the two kingdoms—which, in permitting the multiplication of animals, augment at the same time the growth of plants destined to become their food —which order, that as rapidly as vegetation increases, the air that it purifies and the resources that it develops, may be in their turn an exciting cause of the production of animals!

Shall we present to your attention the singular contrast between potash and soda, the former of which concentrates itself especially in plants, the latter particularly in animals? Our excretions carry off the potash, and return it to the earth, to the great benefit of vegetation; the water that we drink always contains the marine salt; our aliments abound in it, and thus is preserved, notwithstanding the continual losses, that which is required by our blood. This potash is soluble; it is washed from the soil into the rivers; from thence it is borne to the sea; and to what artifices has not agriculture resorted in order to restore it to the impoverished lands? It is potash which is contained in the ashes that are spread upon our fields; it is that which gives in an important degree richness to the manures of our farms; it is that which the lime thrown upon the soil gradually displaces in the alkaline silicates contained in all the argillaceous earths. While soda abounds in the waters of the sea, potash is found there also; and the marine plants, equally sensible in this respect with the terrestrial plants, condense in their tissues the salts of potash, and retain in the smallest possible proportions the marine salt, which traverses their tissues in such enormous quantities.

Is it not by returning to the soil exhausted of its potash this alkali, which his wines continually hold in the form of cream of tartar, that the agriculturist of the environs of Montpelier

manures with such success his vines by means of sea-weeds? Is it not also in a great measure owing to the salts of potash, existing in these sea-weeds, so abundant on the shores of the ocean, which, thrown upon the fields of the coast, insures them such invariable fertility?

Having been proved that this sea-water is so rich in salts of potash, why should it not itself become the base of an excellent manure? I should rejoice if this thought might be confirmed. I would like to see this water of the sea, into which all the residues of life are drifted and there mingled together, separated into two parts obedient to the hand of man—yielding him, in the crystalizable salts which he has abandoned, soda, a true aliment for him and the animals that are associated with his destiny; leaving, in the salts which do not crystalize, potash, an element indispensable to the vigor of the plants which he cultivates.

These great examples suffice. It is unnecessary to describe how iron is concentrated in the leaves of plants, in the blood of animals; how the fluoride of calcium follows the course of phosphate of lime, and associates itself with it in the enamel of our teeth; how silex enriches the grasses, and exists pure in the blood of animals; how, on the contrary, it takes the place of their soft tissues in so many fossils.

The police of Paris watches over the restaurants with a keen eye, and all its scrutiny is demanded by the public health. Animals now must all be killed within the *Barriérs*, and so strict is the watch that it is nearly impossible to introduce flesh forbidden by law on account of its unwholesome character or its being that of interdicted animals. Some years ago large quantities of horse flesh were constantly sold at the cheap dinner houses for beef. In a short time, two thousand kilogrammes were intercepted by the police as it was about to enter the city. At another time, the officers seized upon nine hundred kilogrammes of horse oil, which was to have been used by the lower restaurants in sauces instead of butter. A lady of wealth in the Place Vendôme used a *milk bath* for her health,

and the milk was afterwards sold to the keeper of a coffee house in the Rue St. Honoré, and served out to his customers in their coffee. A baker was convicted of having conveyed the urine from the *lieux d'aisance* into his establishment to save the expense of water. Where such atrocities are committed, it is needful that there should be a vigilant police.

The celebrated Italian physician Tommasini died on the 26th of November last, at Parma—where he was born in 1769—of acute bronchitis, in the 77th year of his age.

On the dissecting table of one of my acquaintances at the *Ecole Pratique* is a young subject, in the head of which an unusual distribution of the temporal artery exists. The common carotid divides below the level of the cricoid cartilage. The temporal artery comes off along with the occipital by a common trunk of an inch and a half in length; the temporal proceeds from its anterior side, runs along the inner surface of the posterior belly of the digastric muscle, and external to the styloid process, being concealed in this position by a portion of the parotid gland. It then proceeds upward and outward in contact with the forepart of the root of the mastoid process; afterwards it forms an arch, the concavity of which looks forward to the external ear, behind which it curves to gain about two inches above the zygoma, its usual situation, when it divides into its principal branches. The internal maxillary furnishes a small posterior auricular artery, and also a little higher another branch is seen in the normal position of the trunk of the temporal artery, which sends off the anterior auricular and transversalis facial arteries as well as smaller twigs to the neighboring parts.

Dr. Jaesche, of Minsk, has published a method of treating *prolapsus ani* without the knife, which possesses in his opinion many advantages over the usual operation. The treatment consists in applying to the anus, or even introducing a line or a line and a half into the rectum, a piece of lint dipped in a

weak solution of nitric or sulphuric acid, though the former is preferable, being less irritating and painful. The pain which succeeds this cauterization yields in a short time to the application of lint saturated with olive oil, and the excoriations recover in the space of a few days. One or two cauterizations have generally been sufficient in Dr. J.'s hands for the complete recovery of the numerous patients whom he has treated for this affection.

M. Guillon presented, at a late meeting of the Academy of Medicine, an individual on whom he had successfully operated for a fibrous and very hard stricture of the urethra. Before the operation, he was unable to introduce into the canal the smallest sound; afterwards, he could introduce one of considerable calibre.

The following interesting case, published in a German journal, occurred in the practice of Professor Naegelé, jr., of Hiedelberg, son of the celebrated accoucheur of that name: A woman, aged thirty-two years, a *primipara*, arrived at the term of her pregnancy; at the moment when labor commenced, auscultation was practised, and there was distinctly heard in the left hypogastric region the two sounds of the fœtal heart and a simple *bruit de souffle* of the cord, and in the right hypogastric region quite as distinctly other two beats. Two operators applied the stethoscope, one to the right the other to the left side of the woman, and found the beats of the heart of the fœtus and of the cord more frequent on the right than the left. At a later period, when the right fœtus made more movements, the pulsations were forty for the heart, and thirty-six for the cord, which would make a difference of sixteen pulsations in a minute. After the delivery of the first child by the forceps, auscultation was again performed, and pulsations of the fœtal heart, both in the right umbilical region and left hypocondria, were clearly heard. The head of the second fœtus presented itself at the orifice in the second position; the noise of the heart heard in the right side appertained

to this fœtus, which was delivered like the other by the forceps. Pulsations of a single heart were now heard, which were produced by the third fœtus, which came after a time into the world without the aid of art. Fifty-seven hours were occupied by this labor.

The diagnosis of the presence of more than one fœtus in the uterus was founded upon the two double sounds of the fœtal hearts. It was not until after the birth of the first child, when other distinct double sounds were heard, that it was supposed to be a pregnancy with three children. The noise of the heart of the third child had not been heard in the commencement of labor, probably because it was placed behind the others, towards the spine of the mother. The uterine *bruit de souffle* was neither more loud nor more extensive than in ordinary pregnancy.

In the *Bulletin de Therapeutique* there is a case of chorea reported, which was cured in the wards of M. Trousseau by strychnine. The patient, a girl of seventeen years, was seized in January, 1845, with chorea, which seemed to be produced by suppression of the menses. The menses reappeared in the course of six weeks, and the chorea disappeared about the same time under the influence of sulphureous baths. In October, 1845, the menses were suppressed anew. The chorea reappeared, occupying this time both sides, with a predominance in the left; there was marked diminution of sensibility and power of articulation, and manifest enfeeblement of the intellect and memory. The patient entered the Necker hospital on the 22d of December.

M. Trousseau prescribed the syrup of strychnine in doses gradually increased, containing at first the fifth part of a grain of strychnine, which, when it had been augmented to a grain a day, produced a very sensible therapeutic effect. The chronic agitation almost entirely ceased, the intelligence became much more clear, the memory much more active; but the patient still complained of lively itchings of the head, much stiffness of the jaws, without any convulsive twitchings elsewhere. The

syrup was continued during some days in the same dose, then the quantity was progressively augmented until the patient took two grains of strychnine in the twenty-four hours. After two months of treatment, the chorea completely disappeared. The administration of the strychnine was not wholly suspended at once, but gradually diminished. The patient quitted the hospital entirely recovered.

The menses had not reappeared, but their suppression was now owing to her conception. The cause which produced the chorea in the first instance was evidently the suppression of the menstrual flux. It is probable that this is one of the most common causes of chorea, though it is seldom that the influence of the menstrual discharge in the production of this disease is so distinct. It is equally important to remark the rapidity with which the recovery was effected. The therapeutical application of strychnine is a difficult medication, requiring great prudence and care; at the same time, it is one of the most powerful remedies of the materia medica. This, however it may be to others, to me is a very interesting case.

I was disappointed in Andral, who lectures on pathology and general therapeutics at l'Ecole de Médicine, as a lecturer. He reads most of his lectures, and does so very rapidly, not as distinctly as some, hardly ever lifts his eyes from the paper, and seldom makes a gesture. Gerdy, one of the surgeons at la Charité and lecturer on pathological surgery at l'Ecole de Médicine, is a pleasant speaker, rapid, distinct, animated, becoming at times very earnest. His voice is not a good one, lacking compass. He is a fine sized man, with large head, thick black hair, which is here and there sprinkled with a few gray hairs, black eyes, and large nose; indeed, all his features are large. His age I should take to be fifty years.

In my last letter I spoke of M. Roux and the ligation of the femoral artery for what he pronounced to be an aneurism of the head of the tibia. The diagnosis of this case has created an unusual amount of interest. The editor of the *Gazette des Hopitaux*

differs from M. Roux, and believes the affection to have been a bloody tumor complicated with cancerous degeneration, instead of simply a *tumeur fongueuse sanguine*, analogous to erecetile tumors of the soft parts, produced by dilatation of the arterial capillaries of the substance of the bone. The difficulty of diagnosis between an osseous aneurism and a cancerous tumor of the bones accompanied by pulsations, is extremely great. The points of resemblance between the two are numerous and striking; both are intimately connected with the subjacent bone; a loss of substance of the bone is distinct in each; in both, an osseous lamella affords crepitation; an expansive pulsation and fluctuation is detected in each; and lancinating pains, which not long ago were considered as pathognomonic of cancerous affections, are experienced alike in osseous aneurisms and other tumors which present no degenerations of a grave description. M. Nélaton, surgeon to l'Hôpital St. Antoine, who has published an admirable volume entitled "Traité de Pathologie," and is on the eve of bringing out a second, gives in substance the following, which may assist in distinguishing the two affections:

1st. Osseous aneurism, existing without any complication, disappears completely or almost entirely under continued pressure; while an encephaloid tumor, although it may be made to sink in some degree under pressure, always presents a mass of cancerous tissue which cannot be dissipated.

2d. Cancerous tumors of the bones which present pulsations are accompanied, ordinarily, by a *bruit de souffle*, which is never heard in osseous aneurisms.

Dr. Marati, of Naples, in a practice of twenty years, has had occasion to treat a great number of patients afflicted with malignant pustule and anthrax. He has never employed the red iron nor any other caustic in cases of this kind, but has had recourse exclusively to extensive frictions with mercurial ointment morning and evening; he has applied thus from a hundred to a hundred and twenty-five *grammes* of the ointment in a day to the red and tumefied surface, and by the aid

of this simple remedy alone, has succeeded in all except two cases, upon whom the disease had made too great progress before the friction was commenced, in circumscribing the affection, putting a stop to accidents, favoring the fall of the eschar, and finally in obtaining a rapid recovery.

In the great number of cases submitted to his observation, he has not seen a single one in which salivation was produced by this energetic hydrargic treatment, and he has administered it indiscriminately to old and young subjects, adults and pregnant women in all stages of the disease.

This remedy is rendered even more precious from the fact of the practitioner's being able to associate it with cauterization and the internal use of the spiritus mindereri, or of the ammonia itself, in doses appropriate to the condition of the patients.

M. Velpeau delivered, a short time since, a very interesting lecture on inflammation of the submaxillary and sublingual glands. He gave the following as signs which establish a distinction between inflammation of the ganglia and that of the salivary glands:

In the glands, the inflammation commences in the interior of the mouth; the pain is felt in this point: in the ganglions, the contrary is the case. In inflammation of the glands, the salivary function is troubled; the mouth is probably dry at first, then the secretion of saliva is augmented; there is no external inflammation, no redness of the skin, no *empâtement;* the tumor is movable: these signs are never present in ganglioni phlegmasia. In the latter (ganglioni phlegmasia), suppuration is very easy: in the glands, resolution is most frequently the result; suppuration occurs with difficulty, and inflammation gains but a small portion of the neighboring tissues: the opposite is witnessed in inflammation of the ganglia, eight days hardly elapsing without the formation of pus. Finally, when the salivary glands are the seat of a phlegmasia, the tongue is pushed against the palate, and deglutition is perhaps embarrassed: when it is the ganglions which are affected, the

patients may complain of pain in swallowing, but there is no mechanical obstacle.

The treatment of these two affections, although alike in some respects, differs in many points. In inflammation of the ganglions, venesection is generally useless, while leeches produce a good effect; then after some days comes the surgical treatment, afterwards cataplasms and vesicatories. In inflammation of the salivary glands, bleeding from the arm is more efficacious than topical bleedings; afterwards a tolerably deep incision by the mouth stops, ordinarily, the inflammation, and brings about a speedy amelioration.

M. Louis, at the *Hotel Dieu*, had in September last a case of pulmonary consumption, the march of which was rapidly to a fatal termination. The patient, admitted on the 14th, was a woman æt. twenty-eight years, a semstress of delicate constitution, lymphatic temperament, who has borne two children at four years' interval, and enjoyed habitually good health. The first confinement was happy, the second was also terminated easily, but a fortnight after she was attacked with diarrhœa which has continued ever since. Four months have elapsed since the last confinement. The patient dates the beginning of the affection fifteen days after. It made its appearance in the form of a very abundant diarrhœa, mounting as high sometimes as eight or ten stools during the day. Sometimes small quantities of blood were mixed with the fæcal matter, which, save that it was more liquid, resembled the white of an egg. Slight pain in the abdomen, cough which has existed about the same length of time as the diarrhœa, small, however, and until lately dry: some sweats at night; no pain in the breast.

Bronchial respiration at the summit of the right lung, and broncophony. The respiration is rude and a little *soufflante* throughout the whole extent of the lung: sufficiently good in the left. Some pricking in the throat. The voice is unaltered. Interrogated as to the seat of her suffering, she places her hand in the region of the larynx. She complains also of

a pricking and uncomfortable heat behind the sternum. This pricking provokes the cough, which, without being exactly painful, is laborious. After fits of coughing the pit of the stomach becomes painful, owing probably to the fatigue caused by the shocks. Since the last twelve days she has expectorated after coughing, without difficulty, a thick, white, viscid matter, a little gray in places, without traces of either blood or pus. No appetite; lively thirst. Food appears bitter to her. The abdomen, a little sensible to pressure, is well formed, presenting no tumor even when strongly pressed. Numerous stools; eight or ten a day. Rice water, syrup of gum, with extract of opium injection, laudanum 10 drops; diet.

16. The stools have been less numerous than the day before yesterday; only one during yesterday. Vomited three times. The general feebleness is very great. She replies slowly and with difficulty; countenance sunken; skin moist; pulse frequent, 104 *a* 108; sensation of weight and heaviness about the head; movements slow, intellect clear; no vertigo; a little drowsiness.

The phenomena furnished by auscultation remain the same: some crepitation at the middle part of the lung. Two pills of the subcarbonate of iron; laudanum injection; diet.

19. Six liquid stools. Since her entry the patient has grown sensibly thinner. Feebleness increased every day: visage greatly altered. The eyes are surrounded by a bluish circle. There is a pale yellow tint of the skin; lips pale; projecting cheek bones. Same treatment.

23. Continuance of the diarrhœa; the tongue is furred in the middle, and red upon the edges. No appetite; lively thirst. Respiration grows more and more laborious every day. Expectoration abundant, characteristic, containing pus, evidently tuberculous, swimming in a mucous liquid. From this moment all the above mentioned symptoms became greatly aggravated. Seven to eight stools a day; pain in the belly; emaciation progresses rapidly; pale yellow tint of the skin; frequent cough; abundant expectoration, characteristic. The eyes are deeply sunken in the orbits. Feebleness ex-

treme. The patient nevertheless says she does not suffer, and complains only of a little oppression and difficulty of respiration. She died on the 5th of October. The autopsy revealed numerous granulations of the left lung, especially at its summit, and a considerable crop of tubercles in the crude state, of very small volume. The right lung contained a large cavern in the summit, which appeared of recent formation. Numerous granulations and tubercles, some in the crude state, others beginning to soften, were observed throughout the entire extent of the organ. The mucous membrane of the large intestines was of a bright red color; no tubercles were found in the mesentery. Other organs healthy. The condition of the large bowels accounts for the obstinate diarrhœa in this case.

Acute phthisis, says Lænnec, is the product of a tuberculous affection of the lungs, which, latent, during a longer or shorter period, unmasks itself suddenly, produces an acute fever, emaciation and generally symptoms so grave, that the patient is carried off perhaps in six weeks, or a month, and sometimes in less time.

Sometimes the march of acute phthisis is so rapid, that it lasts only two or three weeks, and M. Louis has detailed, in his work on pulmonary phthisis, the case of a man who died in twenty days after the first signs of phthisis were observed. The lungs contained caverns.

Whatever may be the opinion adopted, as regards the above described case, in relation to the latent condition of the tubercular deposit, it is unquestionable, that among certain subjects phthisis progresses as an acute disease, especially in the period of softening. It is allowable to suppose, in the case in hand, that the disease existed for some time before it manifested itself. Many authors, we know, state, that when a phthisical woman conceives, the phthisis remains stationary during pregnancy, and assumes a new and greater intensity a short time after her confinement, which seems to become the signal for the revival of the disease. There are other circumstances which hasten the march of phthisis; such are small-pox, measles, scarlatina, and especially bronchitis and pneumonia.

M. Béhier, one of the physicians of *La Charité*, has had during the last few weeks several interesting cases of small-pox in his service. A female, twenty-eight years of age, slept for some nights next to the bed of a patient laboring under variola: one morning, in making up a bed, she touched his person. Twenty days after she was seized with chilliness, followed by heat and a sensation of general lassitude, with pains in the loins, felt particularly in movements of the limbs. She complained of soreness of the throat, with tolerably intense oppression; the tongue was white, the eyes weeping, and the palate the seat of papulæ. The most remarkable phenomenon in this case, and it is on this account that I have reported it, was the form and volume of the pustules, which were small, pointed, resembling simple acne, and not presenting the appearance of pustules with wide bases which are observed in variola. This modification in the eruption alone gave rise to some fears of unpleasant complications. And this is a character which it is well to bear in mind, that whenever the pustules present themselves in this way, there is reason to anticipate an abnormal march, or some grave epiphenomenon in the disease. The third day a violent delirium declared itself; the patient jumped out of bed and ran across the ward. She complained greatly of her throat: her pulse was at first 74; then 84; then 90. Six leeches were applied behind each ear. Calomel was given internally; two large blisters to the lower extremities, after having previously used sinapisms. The third day after the delirium the pustules became less distinct, and the symptoms improved. This is a remarkable fact—the patient had been vaccinated, and should have had varioloid; but, on the contrary, her symptoms were exceedingly grave. It is generally the case, when a patient who has been vaccinated is attacked with variola, that the disease is more mild than if vaccination had not been performed. An opinion prevails very extensively among physicians, that in variola the pustule is umbilical, or pointed, and that it is not so in varioloid. This is proved to be altogether erroneous. In variola, umbilical pustules are but rarely

seen, and the only real difference between it and varioloid is in the time of desiccation. In the former, between the eruption and the desiccation, there is a distinct period, while in varioloid the pustules appear, become dry, and the scales are formed and fall off very rapidly.

There should be no importance attached to the umbilical shape of the pustules in these diseases, according to M. Béhier, who has made extensive and careful researches on the subject, both at *l'Hopital Saint Louis*, and *l'Hopital des Enfans*, where he has had numeruus opportunities of observing these diseases. As a general rule, variola does not offer umbilical pustules. The history of this patient, after her recovery from variola, shows the possibility of complications posterior to the principal affection. The parotid of the left side of her neck inflamed, and the abscess was opened. Erysipelas seized first this side, and afterwards the other, and was followed by anasarca, which commenced in the face, obstinate diarrhœa, and albuminous urine. The same remedy was employed in this condition, as in a similar case supervening upon an attack of scarlatina: vapor baths produced sensible amelioration of the symptoms.

In the treatment of hydrocele, M. Blandin does not believe that the nature of the liquid injected into the vaginal tunic exercises any sensible influence upon the results of the operation. He employs, with equal confidence, the vinous decoction of roses de Provins, tincture of iodine, etc. It is only necessary that the liquid should possess irritating properties, in a sufficient degree to provoke an adhesive inflammation, in order that its use may be followed by success. He prefers a simple mixture of three parts of water to one of rectified alcohol. This liquid possesses the advantage of being always at the hand of the surgeon, and not requiring, as the vinous decoction does, a manipulation more or less tedious; and what is of more importance, it possesses over the preparations of iodine the advantage of leaving no stain on the instruments, or on the linen of the patients.

In the *Journal Connaissances Médico-Chirurgicales*, and the *Gazette des Hopiteaux* I see favorable notices of the *monésia*. One writer thus speaks of it: Monésia is easy of administration: it is active even in minute doses, 12 *a* 16 grains per diem being usually sufficient. It may be given in the form of pills of 4 grains each; of syrup which contains 6 grains to the ounce; of alcoholic tincture, which is employed both externally and internally, of the strength of 30 grains to the ounce: finally, it may be used in the form of an ointment, composed of one part of the extract to seven of hogs' lard. These proportions of course may be modified at the discretion of the physician.

We have noted, continues this writer, that in all cases where astringents are indicated *monésia* is a precious remedy; like catechu it is a powerful astringent and at the same time stomachic; it neither irritates the stomach nor dries the mouth. The preparations of monésia may be regarded as specifics in passive hemorrhages, diarrhœas and chronic catarrhs, and in many diseases where there is feebleness and softening of the organs or tissues. Our successes have constantly verified these opinions. We see with regret, that a substance so efficacious and yet so incontestably harmless is not oftener used in therapeutics. It has rendered service in that intestinal phlegmasia, designated cholerine, which prevailed with so much severity in London, and which is perhaps as frequent though less violent, at Paris. In fact, against the fluxes of the belly, these serous diarrhœas sometimes sanguinolent, monésia is an excellent remedy that we cannot too much recommend to our brother practitioners.

Recently we have obtained by its use the cessation of a hematemesis which had resisted the usually employed remedies. We conclude by citing some cases.

The first of these was an affection bearing a close resemblance to the *noli me tangere*, and consisted of a button situated upon the cheek: a great number of topical applications had been used without result; cauterizations of various kinds had only brought the little tumor to a state of ulceration with-

out producing cicatrization: we were disposed to resort to the arsenical paste when we were struck with the idea of sprinkling this ulcerated surface with the powdered extract of monésia: prompt and complete success was the result, and for two months the recovery has been maintained. The other observation, not less remarkable, relates to an excoriation of rather a carcinomatous character upon the end of the nose—an excoriation which had existed three years, and which began to extend itself notwithstanding the well-advised treatment which had been practised; cauterization had been resorted to without avail. We prescribed lotions, frequently repeated, with water containing 60 grammes of tincture of monésia to the pint; and we have obtained a complete and durable recovery.

The present number of hospitals or almshouses in France is 1338, having a revenue of 53,632,992 fr. There are 39 institutions for the education of the deaf, dumb and blind youth of the kingdom, in which at present 1675 pupils are receiving instruction. The number of deaf and dumb persons in France is computed at 20,000 to 25,000, and the number of blind at 12,000 to 15,000. As to the *enfants trouvés*, the number cannot be accurately made out, but 123,394 have been received at the Foundling hospitals, of which there are 144, in a single year. The number of indigent lunatics is 12,286, who are supported by the government at an annual expense of 4,326,138 francs, and by the humane and judicious treatment a large number of these unhappy beings are every year restored to reason, and to their families and society.

In a late English paper I observed an analysis of gun-cotton made by Professor Graham, of London. Exploded in a glass tube so as to collect the gaseous products, 53.33 grains of the cotton yielded 100 cubic inches of gas, of which the composition was as follows:

Carbonic acid	14.284,	or 2 volumes;
Cyanogen	7.143,	or 1 volume ;
Nitric oxide	35.715,	or 5 volumes;
Carbonic oxide	35.715,	or 5 volumes;
Nitrogen	7.143,	or 1 volume.

Besides these aëriform bodies, a portion of oxalic acid is precipitated, and a considerable quantity of water results from the combustion.

Near the *Marché neuf* stands a plain Doric building of one story, divided into several rooms, and a large entry or hall. Here, in a little chamber separated from the entry by windows running from the ceiling almost to the floor, are deposited for the space of three days the bodies of those unknown and unfortunate beings who have committed suicide, or met with death by accident. This room contains ten tables, or inclined planes, upon which the dead are laid: over their heads, upon pegs which are driven around the wall, are hung their clothes; and these are allowed to remain long after the bodies have been removed, in order still further to promote the recognition of their owners. After the lapse of three days, unless the bodies are claimed, they are removed and buried at the public expense.

The same feeling of unnatural curiosity which prompts hundreds of people to flock about the scaffold to witness the dying struggles of a fellow-creature, keeps constantly in and around the *Morgue* numbers of men, women and children, ever on the alert to see the cart drive up which contains the remains of some unhappy Frenchman, who, tired of the fierce struggle of life, has shuffled off his mortal coil. by a somerset from a window in the fifth story, or a dive into the Seine from one of the many bridges which span it. Or, perhaps it may be the body of a poor girl, who listened to the voice of deceitful love, was seduced, became a mother, and then, to quiet the stings of conscience, or appease the stern calls of hunger, swallowed a few grains of arsenic, or a few drops of prussic acid, Or, as the other day when I passed it, the "green-eyed monster" may have gained the ear of some tricky husband, and prompted him to kill and quarter the supposed, perchance the real, author of his dishonor.

The crowd is a motley one, and, of course, has its Billy Sniffle. The mender of soles crosses over from his shop,

which is not far off. As he enters the door he ties the wax-ends about his neck that they may not be lost while he elbows his way towards the tables. After having feasted his eyes to his heart's content, he turns and addresses himself to the woman by his side, who, as is usual in such cases, is acquainted with all the circumstances of the catastrophe. She begins her narrative, and soon becomes a centre about which a group collects and listens, as she oracularly delivers what she has heard "that somebody told some one else." The market woman passes by; she cannot resist the temptation, but, looking about for a convenient place where she may deposit her large and heavily loaded basket, soon has thrusted her nicely handkerchiefed head into the assembly, where she drinks in every detail. Thus filled, she takes a long look at the bodies, returns, asks some one to assist her to shoulder her basket, moves on, and, in turn, becomes herself a magnet, around which curious women and wondering children gather to listen to her narrative, and at last go away to repeat the sad, eventful story.

Many garments, of males and females, hang on pegs around the room. They are of all descriptions—here a gown, there a coat; here a hat, there a bonnet; on this peg a pair of coarse, heavy boots, on that kid slippers; here a cravat, there a shawl; now a cloak, and by its side a chemise; here a pair of fine black trowsers, and opposite to them the patched and greasy breeches of the laboring man, who, perhaps sick of his destiny, unknown, friendless, and in want, loosed the silver cord by blowing his brains out with powder and lead that he had purchased with his last *sous*.

The bodies of about three hundred persons are annually exposed at the Morgue, of which five-sixths are males.

Having spoken of Morgue, the *dead house* of Paris, I will conclude by a brief reference to the final resting place of the living of this great metropolis. *Pere la Chaise*, the chief cemetery of Paris, was at one time the country seat of the Jesuits. It was consecrated as a burying ground in 1804; it

lies on the north-east of the city, on the side of a hill, and contains one hundred acres, surrounded by a wall. Besides the many who go there to hang garlands on the graves of their friends and relatives, the number and beauty of the tombs, the extensive panorama which is caught from the hill top, and that undefined interest and curiosity which prompts one to visit the resting place of the dead, contribute, on every beautiful day, to assemble hundreds of people within the enclosure; and, according to my taste, there are few places about Paris which so well repay the time and trouble of a visit.

The second day of November is *le jour des morts*, (all-souls-day,) the ceremonies of which interest a stranger, and especially one from a protestant country. For several years the day had been unfavorable; but a more glorious one than the last could not have been desired, save that the ground was rather damp, and, as was anticipated, more persons were present than had been for many an all-souls-day before. The cemetery, divided by numerous roads and paths, was the scene of many phases of human condition and character during the day. From morning till evening it was crowded with people, all in their fête day clothes. With the three periods of morning, noon and evening, changed the character of the visitors. Early in the day, the poorer people, those who, notwithstanding that it was a holiday, were not able to spend it as such, came, sought out the simple and unadorned graves of those they had buried, and, hanging their single garlands upon one of the wooden rails which marked the spot, turned away with a grief as profound perhaps as those who, at a later period, descended from their carriages, and amid the rustle of silks strewed fragrant flowers and costly garlands upon marble tombs, and again seated themselves and were whirled away to scenes where the dead are forgotten.

In the streets leading to *Pere la Chaise* on the second of November, exposed from every door near the cemetery, are garlands for sale, made of *l'Immortelle*, a flower which is dried and retains for a long time its color. They are either perfectly plain, or have on them, "To a dear brother," "To a

kind mother" &c. &c. They are laid upon the tombs, around or in them, or placed over them on a rod protected by a cover: some were withered and dead, others were fading, others had been removed and were trampled under foot, whilst others again were fresh. One might have been disposed to speculate on the different stages of grief suggested by the fresh and dead garlands, but that, on returning from the gate of the cemetery, he remarked hundreds of those whom he had seen bring in and deposit the flowers, standing and enjoying the the feats of a juggler. While I was in the cemetery a burial took place, and as the funeral car rolled along its solemn way no head which it passed remained covered. Hundreds stood by to see the coffin lowered, and as it was covered out of sight the springs of grief in many a heart were made to flow afresh. When a funeral takes place here, as it moves down the street, every one removes his hat and remains uncovered until it has passed. There are many trees in the cemetery; I was there in the season of "the yellow leaf;" and as they fell and were trodden upon, one felt that before the fall of next year's leaves hundreds of those human beings who walked then carelessly among them, would themselves be entombed and as utterly forgotten. The man gives a *sous* for a garland by which to testify his annual remembrance of his brother, deposits it upon the grave, turns away, saunters through the cemetery, goes out, is attracted by the loud spoken advertisement of a juggler, pays him a *sous*, and moves on, to return another year, renew the garland and patronize a mountebank! There are upwards of 15,000 tombs in this cemetery, upon which it has been estimated that nearly twenty millions of dollars have been spent. They are very slight and will not last long, a circumstance to be regretted. There are crosses and virgins in great numbers of these, and very many contained burning wax tapers. The monuments represent pyramids, sepulchral chapels, temples, obelisks, columns, urns, mausoleums, etc.— The tomb of Laplace is of white marble, surmounted by an obelisk, which is capped by an urn, ornamented with palm branches and a star encircled by inscriptions alluding to his

works. A cenotaph, crowned by a fox, in black marble, and ornamented by two bas-reliefs in bronze, one representing the fable of the *wolf and the stork*, and the other the *wolf and the lamb*, you will recognize as the the tomb of La Fontaine.—One other and I have done: the purport of it is this—"To the memory of —." This monument was erected by his "disconsolate widow." She informs her friends and the public generally, that "she still continues the business at the former stand, rue —, No. —." Of course, all who read this inscription are curious to see its careful author, and many thereby, no doubt, are induced to "open an account" with the "disconsolate" creature.

Paris, December 30th, 1846.

ART. VI.—*Cases of Dropsy.* By DR. THOMAS C. OSBORNE. of Erie, Ala.

Case 1. This was a case of ascites in an unmarried female, aged 18 years, the result of acute peritonitis.

In February 1842 she was seized, after exposure to cold, in her menses, with a chilliness and pain in the head, back and abdomen. I found her laboring under intense pain about the umbilicus, which was increased by pressure, her pulse 100, quick and tense, with hurried respiration and anxious countenance. The menstrual flux continued, bowels constipated. Treatment: v. s. to faintness; cal. and jal., to be followed by ol. ric. in six hours; fomentations to the abdomen.

18th. Patient better; bowels moved; respiration attended with less pain.—Castor oil and pepper poultices.

19th. Patient worse; pulse 100 and tense; she lies on her back with her knees drawn up; pressure of the bed clothes painful; menses suppressed; bowels costive.—V. s. repeated to syncope; blister over the abdomen; cal. and jal., to be followed in six hours by ol. ric. and spts. terebinth.

21st. Better in every respect. Pulse 80, soft and full, skin moist, bowels soluble, and the evacuations bilious.—Laxatives and diet.

March 9th. The blistered surface having healed, the abdomen was observed to be swelling and the respiration impeded; pulse 90, small and hard; bowels open; urine scanty, natural in color, deposited a branny sediment, not coagulated by heat.—V. s. again, and blister reapplied; cal. and squills, 2 gr. each, three times daily; bitart. potas. and jalap every morning.

10th. The blister drew, and was attended by an extraordinary effusion of serum; the bed clothing and mattress were saturated, and the liquid had run down upon the floor.—Treatment continued.

April 14th. Patient much worse. Blister applied again, but without any good result. All expedients were tried, but still the ascites continued to progress until July, when tapping was deemed indispensable. Three gallons of serum were evacuated; the girl felt much relieved; the kidneys, having been long torpid, now began to act, and lively hopes were for a few days felt, that the patient was about to recover. But these flattering appearances soon failed, and, by the last of August, the dropsical effusion was as great as ever. I determined, as a mere experiment, to employ iodine in the case, and on the first of September gave her 10 drops of the saturated tincture, to be repeated thrice daily. Six days afterwards the menstrual flux returned; the abdomen diminished steadily in size, her strength improved, and in three months her health was restored.

Case 2. This was a case of ascites, resulting from the improper use of a stimulating emmenagogue—the volatile tincture of guaiacum. The subject was a negro woman, in whom suppression had existed for two or three years. She was cured of the dropsy in a short time by cal., squills, and the bandage.

Case 3. The third case was one of ascites and anasarca in a child, following diarrhœa. A cure was effected by cal. the bandage, and tepid bathing.

February 9th, 1847.

BIBLIOGRAPHICAL NOTICES.

ART. VII.—*Analyses of Grains and Vegetables, distinguishing the Nitrogenous from the Non-nitrogenous Ingredients, for the Purpose of estimating their separate Values for Nutrition. Also, on Ammonia found in Glaciers; and on the Action and Ingredients of Manures.* By E. N. HORSFORD, A. M. Boston, James Munroe and Company, 1846: pp. 68.

One of the most important facts in vegetable physiology is the observation made by Bonnet, that plants growing in rain or river water give out bubbles of air. The same observer remarked, that when plants grew in water which had been boiled, their growth was not attended with the evolution of gas. Priestley took up the subject, and, in that spirit of research for which he was distinguished above all his cotemporaries, applied to the gas such tests as showed it to be oxygen. Another valuable observation added by Ingenhousz was, that it was only when growing in the sun that plants had the power to extricate this gas. It was reserved for a later philosopher to show whence the oxygen was derived, and this was done by Sennebier, who proved that it came from carbonic acid. Finally, Percival and Saussure demonstrated that plants grew more rapidly in an atmosphere containing an excess of this acid. Boussingault has recently established that one part of carbonic acid in eleven of atmospheric air is highly favorable to the growth of vegetables so long as they are under the influence of the solar rays, but that in the shade the smallest quantity of the gas is injurious to them. Their growth was found to be hastened by fanning them with an air loaded with the acid, and the air which had been subjected to their action proved to be strained of the gas. Hence it results that carbonic acid is the food of plants.

It is only within a few years that the extent and importancce of nitrogen in plants has come to be recognized. Not very long ago chemists regarded this as constituting the great distinction between vegetable and animal matters, that the

former were nearly destitute of nitrogen, whilst in the latter it was an abundant element. Gay-Lassac was the first to show that nitrogen is an almost invariable constituent in the seeds of plants, and since this important discovery the conception of animal nutrition has been assuming a character more and more definite, until what was regarded as a most mysterious process has come to appear a very simple one. Modern chemical research has disclosed the interesting fact, that vegetable substances may be arranged in two classes, the nitrogenized and the non-nitrogenized. Animals die of inanition if confined to a diet destitute of nitrogen, and laborers supplied only with food containing none of this principle become incapable of executing their tasks. This is all easily explained, and depends upon the identity in chemical composition between vegetable fibrin, albumen and caseine, and the corresponding bodies found in the animal kingdom. The aliment must contain matters suited to replace the animal tissues consumed. This being understood, the chemist, when he has ascertained the relative proportion of the nitrogenous compounds in various kinds of food, is prepared to say what is their relative value. The more nitrogen, the more nourishment there is in them.

"The nitrogenous bodies, from their solution in blood, form the tissues—the actual organism. The bodies wanting nitrogen contribute, by their more or less perfect combustion, to the warmth of the animal body; and the salts of the alkalies and alkaline earths, serve in building up the osseous framework, beside constituting an essential part of every organ of the animal system.

Their values for the latter purpose are in proportion to the phosphates the ashes contain.

Their values for the second purpose above mentioned, may be considered, in general, as in the inverted relation of their values for the the first;—since the larger the proportion of nitrogenous bodies, the less must be the proportion of bodies wanting nitrogen.

Their values for the first purpose, that of ministering to the support and growth of organic tissues, have been the specific object of the hereafter enumerated determinations."

The object of the investigation the results of which are de-

tailed in these Essays, was to determine the relative values of different kinds of vegetable food, and was undertaken at the suggestion, as the author states, and under the direction of Professor Von Liebig, in the Giessen Laboratory. It has been pursued to a highly successful and creditable termination. The author shows himself capable of the highest achievments in analytical chemistry, and we look upon his present effort as but an earnest of the contributions which may be expected from him to this most interesting department of science. It is only his results which would be interesting to most readers, and these are presented in the following table, the last column of which exhibits the conclusions of Boussingault formed upon experiments with a view to practical equivalents. It may, perhaps, be well enough to explain, that the smallest numbers express the highest values. Thus, 100 pounds of wheat are equivalent to 1000 pounds of turnips, and 55.5 pounds of linsen to 100 pounds of wheat.

Tabular View of Nutriment Values expressed in equivalents, Wheat at 100.

Name.	Theory.		Experiment
	Dried at 100° C.	In fresh condition.	In fresh condition.
Wheat	100.	100.	94.
Rye	98.8	97.6	97.6
Indian Corn	115.	113.	108.
Triticum Monococcum	128.	124.6	——
Barley	104.	102.	101.5
Panicled Oats	92.	90.	112.7
The same, without chaff	78.	76.3	——
Kamschatka Oats	110.	106.	112.7
Common Rice	220.	225.	——
Tartarian Buckwheat	170.	166.	122.7
Table Peas	59.9	57.6	90.7
Field Peas	57.7	60.	90.7
Table Beans	59.2	57.	90.7
Large White Beans	58.8	57.	94.7
Linsen	55.5	53.	——
White Potatoes	169.8	565.6	429.
Blue Potatoes	220.8	596.3	429.
Carrots	158.6	959.4	545.4
Red Beets	109.	501.5	——
Yellow French Beet	146.	689.5	643.
Ruta Baga	182.7	919.4	589.7
White Turnips	133.8	919.4	1000.
Onions	224.6	210.6	——

The author, as the result of his investigations, arrives at the following conclusions:

"That the same species of cereal grain, grown on different soils, may yield unequal percentages of nitrogen.

That wheat and rye flours, to the eye and sense of feeling undistinguishable from each other, may differ by from one to three tenths of their whole quantity of nitrogen.

That one seventh of fresh, ripe, cereal grains, is moisture, and may be expelled at a temperature of 100° C.

That root crops, grown on different soils, may yield unequal percentages of nitrogen.

That the percentage of moisture in edible roots, is a constant quantity for each variety.

That beets, carrots and turnips have a larger percentage of moisture than potatoes.

That more aliment is contained in a given weight of peas, beans or lentils, than in an equal weight of any other kind of food above analyzed.

That in several of the grains and roots analyzed, there are organic bodies beside those identical in composition with gluten and starch.

That the ashes of carrots, beets, turnips and potatoes, as Prof. v. Liebig has already remarked, contain carbonates.

That the ashes of all the varieties of vegetable food above analyzed contain iron.

Finally, that the difference between the theoretical equivalents of vegetable food, as estimated from the percentage of nitrogen, and those ascertained by the experiments of stock growers, and the differences between the results of different stock growers, may be attributed in part to the unequal percentages of nitrogen in the grains and roots of the same species or variety, when grown on different soils,—but chiefly to the imperfection of determining the modes of the practical equivalents. These have been imperfect,

1st. Because the prominent test employed, has been increase or diminution in weight, of the animal fed. Increase in weight may arise from secretion of fat derived from the sugar and starch of plants. Diminution in weight may follow unusual activity, increasing the consumption of fat already present.

2d. Because theoretical equivalents have been employed in conditions unequally suited to digestion. The same article of food, coarse or fine, fresh or prepared for easy digestion, yields unequal measures of nutrition.

3d. Because the experiments, in but few instances, have been made with substances where moisture and nitrogen had been previously ascertained."

Mr. Horsford analysed the water obtained from a glacier of the Alps, and ascertained that it contained two parts of ammonia in the million; from which it is evident that ammonia is not confined to the lower strata of the air. Mr. H. also infers,

"That a shower of rain, after a long interval of fair weather, should produce, through the ammonia descending with it, immediate effect in vegetation; and

That a soil, containing the necessary inorganic matters, and whose physical properties enable it to retain a certain measure of moisture, should be fruitful, inasmuch as it retains the ammonia with the moisture; and

That a soil containing so large a proportion of clay that it does not permit water to filter through, should be less fruitful, since the subsequent falls of rain, after the soil has become filled, will flow away, and with them the ammonia they have brought down."

Ammonia exists in the soil in very surprising quantities, as appears from the annexed table, for which we are indebted to the work before us:

Name of Soil Examined.	Ammonia in a stratum one acre in area, and one foot deep, in pounds, avoir.
Clay soil, before manuring	9751
Clay soil	9463
Surface soil, from Hohenheim	8985
Subsoil, from the same field	6015
Clay soil, before manuring	8617
Clay soil " "	8502
Soil for Barley	8373
Clay soil, before manuring	8039
Loam	7939
Loam	7820
Illinois prairie soil	6069

Upon which the author remarks,

"Now, what farmer ever carted from his manure yards 8000 pounds of ammonia to an acre of land? One may almost inquire, what farmer ever carted the tenth, or even the twenti-

eth part of this amount? It is obvious that the ammonia spread on fields in the ordinary distribution of barn yard products, is of no moment. The quantity which usually falls of rain, greatly exceeding in the course of a season, any conceivable supply of human instrumentality. These results put the question of the source of ammonia or of nitrogen out of all doubt."

If, then, ammonia is supplied in sufficient quantity from the atmosphere, to what are we to attribute the efficacy of stable manures? This author thinks, with Liebig, that the good effects are due to the alkalies and earths which they afford; and he concludes that the principle of rational improvement of soils is,

"1st. *A proper physical constitution* for the retention of moisture, escape of surplus rains, expansion of roots, etc. This will be derived from the plow, harrow, spade and hoe, and admixtures of sand in some soils, clay in others, loam in others, and organic refuse in most.

2d. A supply of the inorganic ingredients which the ashes of the plant to be cultivated contains, in such a state that they may be taken readily into the vegetable system, and yet not so soluble as to be washed away by rains."

This view of the subject certainly has simplicity, if nothing else, to recommend it. The air furnishes ammonia and carbonic acid, the great articles of vegetable nutrition; the farmer must see that the soil is fitted to receive them, and also that it contains the requisite amount of the inorganic matters by which plants are developed, and all is done that is required for plentiful crops. The rains effect the rest.

We commend heartily this elaborate tract to the perusal of all who feel an interest in the culture of the soil, of which our conception is that of the Roman orator: "Omnium rerum quibus aliquid exquiritur, nihil est agricultura melius, nihil uberius, nihil dulcius, nihil homine libero dignius."

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

A Case of Apoplectic Chill, Acute Rheumatism, and Paralysis combined. By J. E. Stewart, M. D., of Jackson, Tennessee.—W. W. Williams, ætat. 52 years; laborer, of robust habit and general good health, and had always been temperate, was attacked, July 25th, while in the woods chopping, with what both he and his son, who was with him, considered to be a chill. They immediately set out for home, and after resting several times reached the house. Immediately after his arrival he fell into a state of insensibility, and so remained for several hours; during which time I was sent for. On my arrival I found him in the following state, viz: rather comatose; the face flushed, and apparently swollen; breathing labored, but not stertorous; frequent sighing; when spoken to answers slowly, but correctly. When I took hold of his arm to examine his pulse, he shrunk from my touch and complained bitterly. I now ascertained that he had lost all command over the voluntary muscles of the right arm, and that the shoulder and elbow joints were greatly swollen, red, and exceedingly painful. So acute was the pain in the deltoid and other muscles of the arm, that he could not bear the weight and friction of his shirt sleeve.

℞. Venesection ℥xx., sul. mag. flo. sul. *ää* ℥ℌ., and on the following morning one of the following pills every two hours, quinine, gr.iv., potas. hyd., gr.ss.

July 27th. Has had no further paroxysm, pulse 90, rather hard; venesec. ℥xv., other treatment continued, to which was added a stimulating liniment.

28th. Bowels patulous; pulse 70, compressible; appetite good. Discontinue the purgatives and continue the other treatment.

29th. Symptoms same; has slept well; continue treatment.

30th. There being but little, if any amendment, in either the acute sensibility or motion of the arm, I determined to add to the above treatment the following: ℞, strychninæ gr.i., aquæ puræ ʒi. A teaspoonful to be taken morning, noon, and night.

31st. Symptoms in *statu quo;* treatment continued.

August 1st. Slightly better, can move his fingers; arm not quite so painful to the touch; bowels rather constipated: ordered two of the following pills at bed-time: ℞. ext. col. comp. ʒi., ant. tart. gr.iv., ol. carui. m. iii.; M. massa, divid. in pil. xx. Other treatment continued.

2d. Better; bowels have been operated on four or five times; pulse 75, soft. The above treatment was continued up to the latter part of August, by which time he had so far recovered as to be able to return to his ordinary occupation. to wit: that of farming.

Sept. 25th, 1846. Had another attack in all respects similar to the first, except that it affected the left arm, so far as loss of motion and pain, or rather soreness, was concerned. as the first paroxysm had done the right. There was no swelling of the left arm. Former treatment resumed.

26th. Bowels loose; pulse soft and compressible; appetite good.

27th. Symptoms the same; cannot move the left arm.

28th. Somewhat better. Continue treatment.

29th. Still mending; continue treatment.

30th. Convalescent.

Oct. 26th. Had another attack similar to the one already described, but affecting the right arm as at first. I now substituted spts. turp. m. 3 night and morning, for the hyd. pot.

27th. Better; treatment continued.

28th. Better; treatment continued.

Nov. 2d. Convalescent.

Remarks.—I believe you will agree with me that the above is a most singular and very interesting case. It was not genuine apoplexy, for the paroxysm was ushered in by a chill, and there was no stertor. It was not genuine paralysis attendant upon apoplexy; because, although motion was lost, yet, the sensibility was most acute, and besides, there were swelling and redness accompanying the first and third par-

oxysms, neither of which accompanies hemiplegia or general paralysis. Believing the disease to be a complication, as above headed, I combined my remedies accordingly, and with what success the above detail will show.—*Missouri Medical and Surgical Journal.*

Fatal Hemorhage from a Free Incision of the Gums.—Mr. Anderson relates the following case, in the *London Lancet:* I was called to visit a child six months old; it had been delicate from the first month of its life, but afterwards became stout and healthy, until the day before I saw it. I found it laboring under symptoms of pain in the abdomen, as frequent fits of crying, attended with a bending of the knees upon the abdominal parietes. There had been no sickness nor vomiting; the bowels were not constipated, nor was there diarrhœa; the evacuation of urine was but little diminished in quantity; there were no cerebral symptoms present; no disturbance of the respiration in the intervals free from crying; and no fever. I examined the gums, and fonnd those over the upper central incisors a little red and tumid. I lanced these upper gums somewhat freely; they bled, the child took the breast, and every trace of blood soon disappeared. At that time, I distinctly told the mother that the inferior gums did not require to be lanced. I sent it a grain of calomel, to be taken night and morning, and a carminative aperient mixture, to be taken every three or four hours. I believe I also directed moderate fomentation of the abdomen with hot water and flannel. My prognosis, delivered to the mother, was, "I see no danger in the case, give it the medicine, and I believe it will get well, but if it *should* become worse, send and tell us."

On Saturday morning, the 30th, I received a message that the child was considered to be worse. I went over, and found no remains of abdominal symptoms, and the reason that the child was considered worse was, that it had become unusually sleepy. I had not administered any sedative, and was uncertain whether this somnolence was the result of the relief of the abdominal pain, or the first manifestation of cerebral symptoms. Time would solve the former supposition, and fearing the latter, I directed that the head should be constantly covered with a cloth wrung out of cold water, and the medicine continued.

On Monday, June 1st, I went over before breakfast, and

found the child awake and lively, and had no hesitation in saying that it would soon be well.

Thursday, June 4th, a messenger was sent to say that the parents were uneasy about the child's body, (the abdomen), which had swelled, and they requested that it should be seen. I was from home, and Mr. Jones promised to go directly; he did not, however, see the child until after eleven at night, although he received the message before ten in the morning. I have been told that he paid little or no attention to the abdomen, but urged the necessity of lancing the lower gums, notwithstanding the mother's objection, and that she urged that I had so plainly told her they did not require it. He lanced them, and they bled profusely; he saw the hemorrhage, yet he went away, only remarking, "it will do the child good, and I will send it some stronger medicine."

Friday, June 5th. I went to the child in cosequence of receiving a note, which stated, that it had been bleeding all night and was dying. Upon entering the room, I perceived the contents of the stomach, which had just been ejected on to the floor, and in which was a coagulum of not less than two ounces of blood. I was told, that once previous to that, a similar quantity had been thrown up, and that much blood had passed in five or six evacuations from the bowels since the gums had been lanced the night before. The urine had been voided as usual; the abdomen was slightly tympanitic, and an umbilical hernia had protruded a little. This was the condition of the abdomen which had occasioned the uneasiness of the parens.

The pulse was perceptible at the wrist, and the extremities were warm as usual, but the entire surface of the body was much blanched. The respiration was so hurried that it was the first thing I observed; there was also a disposition to sleep; it could not be said that the child was faint. Upon examining the gum I found an incision extending about an inch or an inch and a quarter in length on the upper border of the lower jaw. It appeared to have been begun at about the site of the outer edge of the right inferior lateral incisor tooth; to have passed with the curve of the jaw *on* the alveolus for about a quarter of an inch, then to have descended on the posterior aspect of the site of the two central incisors, separating the gum from the alveolus and to have been brought over the site of the outer edge of the left lateral incisor, transversely across the alveolus. It was bleeding freely from its entire extent, the blood, issuing out of the incision into the mouth, was swallowed, and it had not the appearance of arterial blood. I endeavored to suppress the

hemorrhage by the application of styptics, as alum in powder and in solution; the nitrate of silver; the application of cold to the chin, &c., but principally by a firm compression of the gum against the bone, continued with little intermission for two hours, but with no effect. The impatience of restraint, the crying and strugling manifested by infants in general, were in this case much opposed to the success of the means employed. I had at one time, however, nearly succeeded, as it bled only from the two extreme points, but a fit of crying brought back the hemorrhage with renewed vigor.

Having passed several hours with this child unavailingly, I left it at near midnight and returned home, leaving word at Mr. Jones' house that *he* should go to see it. He was not at home, but went about three in the morning of Saturday. I did not see the child afterwards, but I heard on the Monday that it had died on the Sunday morning.

These, sir, are the details of the case, related to the utmost of my ability with an undeviating and an *unflinching* adherance to the truth, as free from exaggeration as from extenuation. I solicit an insertion of it in the pages of the Lancet as early as conveniently possible, and I abstain from comment because I believe it may be undertaken by persons who consider themselves more competent. No one, however, but myself could furnish a report of the case.—*Dental Journal.*

Treatment of Bursal Disease of the Knee-joint. By John Richard, Esq., of Leamington.—The plan of passing a bit of sewing-silk through the centre of the tumor I have practised for the last fifteen years. It has never failed in my hands, and I do not think that I have ever allowed the silk to remain longer than through the third day. When the inflammation has been very considerable, I have always enjoined rest, and applied a few leeches, followed up by a liq. plumbi lotion, previous to introducing the silk.—*Dub. Med. Press.*

Report on the Protective Powers of Vaccination.—In April, 1842, the undersigned were appointed by the College, a committee to investigate the protective powers of vaccination; the phenomena resulting when those who have been already vaccinated are again subjected to the disease, and the sub-

ject of re-vaccination generally. Various obstacles beyond their control, prevented their performing, at an earlier period, the task submitted to them, in a manner that would have proved at all commensurate with its importance ; they have, however, been enabled, at length, to bring their labors to a close, the result of which is here submitted.

The first object embraced in the resolution under which the committee was appointed, is one of acknowledged interest ; it refers to the protective powers of vaccination.

The most obvious and conclusive mode of determining the degree of protection imparted by vaccination against the influence of smallpox is to inoculate, with variolous matter, the persons who have been previously vaccinated.

At the close of 1801, the first successful efforts were made at vaccination in this city. In the early periods of this practice, until the year 1812, every means was employed which, at the time, was deemed best calculated to determine whether the process of vaccination would afford full protection against the smallpox. The first step generally taken, after having observed the genuine character of the vaccine pock, was to insert a portion of variolous matter, and to note its progress. Where due attention had been paid to the selection and insertion of this matter, a small red pimple appeared about the third day. On the fifth day, this was converted into a purulent crust, surrounded by inflammation, generally of no great extent, which, after this period, began to fade, and was rarely perceptible beyond the eighth day; it left no trace beyond the tenth. The full and distinctive character of the variolous pock was not observed on these occasions. The persons thus treated were not affected with fever, or any general disarrangement of the system, nor was any eruption observed on the skin. The persons having been submitted to this test, were next exposed to the smallpox in the most direct manner, often by placing them in the beds with those laboring under the disease, even in its most virulent form. A like immunity attended this experiment.

From repeated observations thus conducted, observing that no instance of smallpox had been communicated to those on whom the operation of vaccination had been duly performed, the profession ventured, in 1803, to announce the process as one affording equal protection with variolous inoculation.

The reasons for preferring the process of vaccination to that of variolous inoculation could not fail to be appreciated, and were strongly urged in the circulars issued for the public information.

Under the most favorable circumstances, and where every attention had been paid to insure success, many of those who had been inoculated for the smallpox were known to have fallen victims to the disease. The estimate most generally received, and founded on a large experience, was that one in four hundred of the inoculated fell victims to the process; some practitioners were stated to have been more fortunate, and to have lost not more than one in a thousand. On the other hand, of the thousands that had been vaccinated, not a death had been recorded which could be imputed to this process. The age of the individual, or the physical condition of the other members of the family, constituted no objection to the operation, as the cowpock could be communicated by the direct application of the virus only; while, in the instance of the smallpox, the effluvia emanating from the infected were known to impart the disease to the unprotected, and under circumstances when it was likely to prove fatal. In addition to the loss of life caused by the smallpox, even when the result of inoculation, the mutilations which were so often consequent, even when life was preserved, must have been familiar to every one acquainted with the disease, whether casually received or by inoculation.

Unfortunately, the reputation of the Jennerian process has been materially affected by the ignorance of the persons by whom the operation has been frequently undertaken, and by the want of attention on the part of some of the profession in visiting at the proper periods, and recording the phenomena observed. The period when the areola may be expected ought never to be neglected. The evidence that may be obtained from such circumstantial records will tend to dispel many of the idle reports so freely circulated to the disparagement of vaccination. By consulting such recorded documents, it has been clearly ascertained that the majority of the cases of smallpox ascribed to the failure of the protective process, were, in reality, owing to the imperfect manner in which the operation had been conducted. There is abundant evidence recorded in medical books, of persons having suffered from smallpox more than once; where such a peculiarity of constitution exists, it cannot be a matter of surprise that the disease should be occasionally observed after vaccination, even in cases where the genuine and perfect character of the vaccine process has been fully developed. A careful examination of these histories does not exhibit any appreciable difference in the proportional number of such cases, whether after smallpox or after vaccination.

By an act of the Legislature, passed in 1811, to communicate the infection of smallpox, by inoculation or otherwise, has been prohibited, under certain pecuniary penalties. For the four succeeding years, the disease is not recorded in the bills of mortality; and the mode of most conclusively testing the protective powers of vaccination necessarily ceased. And hence the profession have since then been deprived of a measure so intimately connected with the inquiries to which the attention of your committee has been directed.

Touching this very important question, it must be acknowledged that the documents at command are but few; nevertheless those that have been preserved afford the evidence that, after the lapse of three years, the vaccinated were found no longer susceptible of smallpox by inoculation. Among the persons thus treated, it has been ascertained that an infant, vaccinated within a month, resisted the variolous infection after an interval of the same number of years.

For the want of that full and comprehensive information which our more immediate resources fail to afford, it may prove acceptable if we here present the experiments made by that distinguished and accurate observer, Biot:

"In August, 1826, a number of boys, between the ages of twelve and sixteen years, were inoculated in four places with smallpox virus by Dr. Biot, one of the physicians to the Hospital St. Louis, at Paris. A part of these had been vaccinated, and a part had never been protected from the smallpox. In those who had been vaccinated, the insertion of the variolous virus had no other effect than to produce a slight inflammation for two or three days at the points where the matter was introduced. Those who had never been protected were affected differently, and contracted the variolous disease."

In this stage of the inquiry, it appears not irrelevant to notice the diminished mortality from smallpox, as observed in this city, since the introduction of vaccination. Whenever that disease has appeared, it has been viewed as among the severest scourges inflicted on mankind, and the most appalling apprehensions have been entertained by every community which it has visited. The sufferings of those affected with this malady have at all times awakened the most painful and anxious feelings in friends and connections, and called forth the assiduous and unremitting care of the attendants and those administering to the sick. In seasons of epidemic smallpox, the mortality has been observed to be great. In 1721–22, in the town of Boston, five thousand seven hundred and fifty-nine persons were affected with the disease, of whom eight hundred

and forty-four came to an untimely death, as publicly announced by the municipal authority of that city. This was a fearful mortality, particularly when we advert to the number of persons inhabiting Boston at that period. In the succeeding year, 1722, the census was taken, indicating a population of ten thousand five hundred and sixty-seven; if to this there be added the number who died of smallpox, eight hundred and forty-four, the sum will be eleven thousand four hundred and eleven, as the total population previous to the ravages of the smallpox having commenced. One-half of the inhabitants of the city were affected with the disease. Of those, between one-sixth and one-seventh came to an untimely death, and the city lost nearly one-thirteenth of its population.—*Zabdial Boylston on Smallpox, p.* 33.

Of those who survived the loathsome disease, many, from the hideous aspect and mutilations caused by the disease, continued through life the objects of commiseration, and too often of disgust.

Laws have been enacted, and rigid quarantines enforced, with the view of preventing the introduction and spreading of the smallpox. In small communities, having little intercourse with other portions of the world, these efforts have proved successful for a season; but the temporary immunity thus enjoyed has only rendered the subsequent ravages of the disease the more disastrous. The nations engaged in commerce soon experienced the futility of every attempt to insure exemption from the disease; for though the infected were secluded, and denied all intercourse with those deemed liable to the disease, the poison was found to be frequently conveyed by means of the clothing, and articles taken from the chamber of the sick. For successive ages, the pestilence was submitted to as an inevitable evil, and allowed to extend its baneful influence, annnally destroying large portions of the inhabitants of the earth, and in some instances depopulating whole districts.

The deaths from casual smallpox have varied, from circumstances not in our power to appreciate. The character of the seasons, the peculiarity of position, and the nature of the intercourse between the infected and those liable to take the disease, have had their influence in determining the malignity and mortality observable in different years.

The materials having relation to the medical statistics of Philadelphia, that can be gleaned from its early history, are extremely scanty and defective. It is only within the present century, and for the period of barely forty years, that any of the reports of the deaths have been publicly made. Prior to

this period, the records of the interments were confined to particular religious societies, necessarily difficult of access, and generally ill adapted to the present purpose. Though restricted to a narrow sphere, and not embracing the entire population comprehended within the city and districts, the registers kept at the dispensary afford a document which may constitute a proper basis to found the estimate of the advantages gained by vaccination. From the foundation of the institution to the close of 1801, including a period of sixteen years, when variolous inoculation was considered the only protective process available against casual smallpox, fifty-one persons are stated to have died of this disease, while the entire number of deaths, from various diseases, were seven hundred and one; establishing the proportion to be seventy-three in one thousand, which accords with the most favorable estimates made in Europe, and will hardly be excepted against by those least favorable to vaccination.

In 1807, by an act of the Legislature of the State, every death within the city and districts must be reported to the Board of Health, the certificate expressing the disease of which the person has died. From this source, clear and positive evidence may be obtained. From the annual reports during the period of four years, variolous inoculation still being permitted, it appears that the deaths from various diseases amounted to ten thousand seven hundred and forty-four, of which number, four hundred and twenty-nine were from smallpox. This affords the evidence of a considerable reduction in the proportional mortality from this disease, it being as forty in the thousand; during a period when vaccination had been practised, and institutions established for its dissemination.

Since 1811, variolous inoculation has been prohibited by law. During the four succeeding years, not a death from smallpox was recorded. In 1816, there was a great influx of foreigners, particularly from the British dominions in Europe; by these persons the disease was introduced into this city, and proved fatal in that year to no less than ninety-seven persons. It was accompanied with a papular eruption, resembling, in many particulars, mild variola—affecting some of those who were believed to have been protected from smallpox by having previously undergone what was supposed to be successful vaccination; of these, no death is recorded that has come to our knowledge. In 1820, '21, '22, the city again enjoyed an exemption from this malady. This assertion is founded on the fact of no deaths from smallpox, in these years,

having been reported to the Board of Health. In 1823, '24, the pestilence again afflicted our city, and the mortality from this source amounted to four hundred and eighty-four.* The fact that a large number of those who had been previously vaccinated with the greatest care, as well as many of those who had previously passed through smallpox by inoculation or otherwise, were attacked during this epidemic with a modified form of smallpox, created considerable alarm in the public mind, and directed anew the attention of the profession to an investigation of the amount of protection afforded by the vaccine disease. Upon the recurrence of smallpox in 1827, the Medical Society of Philadelphia appointed a committee to collect and report to the society all the facts within their reach, in relation to this important subject. The committee immediately addressed a circular to the physicians of the city and county, containing a series of interrogatories calculated to elicit information in relation to the protective powers of vaccination. The report of this committee, embracing the facts collected by them, was made to the society in 1828, and was of such a character as to renew the confidence of the profession in the protective powers of the vaccine infection.† Notwithstanding it was admitted that, in many instances, those who had been previously vaccinated would be liable to become affected, during the prevalence of variola, with a modified and usually mild form of smallpox, yet it was shown that the public are highly benefited by the practice of vaccination, which was, in every sense, to be preferred to inoculation; and hence, that humanity and sound policy imperiously demanded its continuance.

In succeeding years, with occasional mitigations, Philadelphia has suffered more or less from the disease. Taking the whole period since variolous inoculation was prohibited, the mortality from all sources has amounted to one hundred and forty-three thousand and seventeen; of this number, two thousand four hundred and ninety-seven are referred to smallpox; by which it will be perceived that the proportional mortality has been reduced to eighteen in the thousand.

We have thus endeavored to exhibit the degree of protection against smallpox afforded by the process of vaccination.

---

*For an account of the epidemic of 1823, '24, we refer to a very able paper by Drs. Mitchell and Bell, in the North American Medical and Surgical Journal, vol. ii. p. 27 et seq.

† For a copy of this report, see North American Medical and Surgical Journal, vol. v. p. 400.

The evidence adduced does not depend on individual experience, but rests on the broad basis of the public records, into which no undue bias can have entered.

It must be conceded, that the anticipations of the warm friends for vaccination, that this process would lead to the extirpation of the small-pox, have not been accomplished. In making this concession, the question necessarily arises, whether the requisite precaution for preventing the intercourse of those affected with smallpox and those still susceptible of the disease have been duly enforced. The remarks of one who took a lively interest in arresting the progress of this loathsome malady, appear to be particularly pertinent, and to deserve the earnest consideration of every individual desirous of removing from the community this dreadful scourge. The words of Dr. Haygarth are: "The discovery of vaccine inoculation by Dr. Jenner is the most fortunate and beneficent improvement that medical science ever accomplished. It does not, however, preclude the necessity of investigating the nature of of the variolous poison, and of considering by what regulations its propagation may be prevented. In order to secure the unthinking multitude from this destructive pestilence, measures to prevent the casual *smallpox* should everywhere accompany vaccine inoculation; without such protecting care, by the wise and humane part of society, this mortal malady would for ages lurk unheard of and unsuspected, to the annual destruction of many thousands. No town, no village, not even a single solitary house, would enjoy perfect safety from danger."

The foregoing your committee beg leave to present as a solution of the first question submitted to them by the college.

The occurrence, year after year, of the smallpox in the city of Philadelphia, and in other communities, and the frequency with which those who had been vaccinated were attacked with a more or less severe, though generally modified form of the disease, induced many to suppose that the protective power of the vaccine infection was only temporary. The question as to the necessity of revaccination now arose; but whilst few practised it, many condemned it as useless, and calculated to weaken public confidence in the protective powers of vaccination. Others, however, maintained that as there was no certain criterion by which the protective powers of the primary infection could be established with absolute certainty, revaccination was necessary in all cases, in order to test the efficacy of the first operation. This opinion very naturally obtained importance, from the fact that few cases

of modified smallpox were known to have occurred after a second vaccination, provided the insertion of the vaccine virus produced an action sufficient to prove that it had been taken up by the absorbents; also, from the disease being observed, in numerous instances, to be arrested in families and in neighborhoods where those already reputed to be vaccinated were again subjected to the operation.

When vaccination has been repeated in those who have been previously subjected to the disease, it is found to produce a local affection, marked by very different degrees of intensity. In some, slight inflammation occurs on the second or third day, and then fades away. In others, various degrees of inflammation manifest themselves, followed by a pock or pustule, terminating in a brown or yellow crust; while, very rarely, a distinct, regular areola is produced, or the other phenomena of the genuine disease, as will fully appear from the table here annexed.

The subject of repeated vaccination has engaged a large field of inquiry in different parts of Europe; a very full abstract of the results of which will be found in the work of Dr. Condie on the Diseases of Children, page 458.

The second question, therefore, submitted to your committee, was to determine the phenomena resulting when those who have been already vaccinated are again subjected to the disease, and the necessity and policy of revaccination. It is to the first portion of this question that the committee have been obliged, necessarily, to confine their attention. It must be very evident, that to test fully the necessity or propriety of revaccination, would either require that after large communities shall have been a second time subjected to vaccination, time be allowed in order that they may be repeatedly subjected to the influence of variolous contagion during the epidemical visitations of smallpox; or that the direct test be resorted to, of inoculating with smallpox those who have been successfully vaccinated, at different periods subsequent to the primary operation, as well as after a secondary operation, and carefully noting the comparative immunity from the impression of the variolous poison exhibited by each class of patients.

In order to obtain as wide a field of observation as was in the power of your committee, they applied to the co trollers of the public schools, soon after their appointment, for the privilege of vaccinating the scholars whose parents would consent to the operation being performed, whether they had been previously vaccinated or not, in order to ascertain the

degree of impression that would be made in each case by a repetition of the operation, and with a view of watching hereafter the effect or influence it may have in preventing the occurrence of smallpox in the subject of our experiments, should an epidemic of that disease again appear among us. But the controllers did not at that time consent to our request, and the investigation of the subject had to be postponed. In the early part of the present year, smallpox again made its appearance, and excited considerable uneasiness in the minds of the public. Your committee, entertaining the opinion that the period was propitious for a renewal of their application to the controllers, accordingly did so, and their consent was promptly given. Circulars were then sent to the parents of the children attending several of the schools, requesting their permission, which was in most cases readily granted, and every facility was offered to carry into effect the object your committee had in view.

The operation was performed in nine hundred and thirty-one cases; six hundred and thirty-five of whom took on various grades of action. Many of these had been vaccinated three, four and five times before, and stood in relation to smallpox, chickenpox, and varioloid, as stated in the following account:

Nine hundred and thirty-five persons, reputed to have been protected by previous vaccination, having distinct cicatrices on the arm, or by having passed through the smallpox, were subjected to the action of the vaccine virus.

50 did not appear on the days appointed for examination.

294 exhibited no signs of inflammation from the process.

52 of these were reputed to have been previously vaccinated twice.

6 " " " " three times.

1 " " " " four times.

14 " " to have had the smallpox.

36 " " " varioloid.

72 " " " chickenpox.

76 had various degrees of inflammation on the fourth day, which had faded before the eighth day.

15 of these were reported to have been previously vaccinated twice.

2 " " to have had the smallpox.

5 " " " varioloid,

26 " " " chickenpox.

181 had inflammation, more or less severe, accompanied by a yellow or purulent crust, on the eighth day.

30 of these were reported to have been previously vaccinated twice.

11 " " " " three times.

2 " " " " four times.

1 " " " " seven times.

9 " " to have had the smallpox.

7 " " " varioloid.

50 " " " chickenpox.

95 had very diffusive inflammation, the pustule still moist the 8th day.
10 of these were reported to have been previously vaccinated twice.
1 " " " " three times.
1 " " " " four times.
2 " " to have had the smallpox.
4 " " " varioloid.
23 " " " chickenpox.
179 exhibited more or less inflammation and a brown crust the 8th day.
10 of these were reported to have been previously vaccinated twice.
4 " " " " three times.
1 " " " " seven times.
8 " " to have had the smallpox.
7 " " " varioloid,
49 " " " chickenpox.
57 had a pock, with various degrees of inflammation; diffused and irregular in its margin on the 8th day.
2 of these were reported to have had the smallpox.
15 " " " chickenpox.
3 (viz. a boy and two girls) exhibited a well defined pock, and the areola characteristic of the perfect vaccine impression, as observed on the eighth day. They are stated not to have been affected with the smallpox, varioloid, or chickenpox.

From the foregoing observations, as well as from those derived from previous practice, your committee are justified in the conclusion, 1st, that vaccination is the best preservative of human life now known against the contagion of smallpox and although it has not answered the full expectations of its more sanguine advocates, by protecting the system in all instances against at least a modified form of variola, which is the case with the smallpox itself, nevertheless life is very generally protected by it, and humanity and sound practice imperiously call for its continuance.

2dly. Patients, who have been once fully subjected to the influence of the vaccine infection, lose in a great degree their susceptibility to a second infection; the susceptibility diminishing still more at every subsequent vaccination.

3dly. That portion of the community who have been once successfully vaccinated, are in the great majority of cases fully protected from smallpox or varioloid.

4thly. A second vaccination does not insure the system in every instance against an attack of varioloid; neither does second vaccination prevent an impression being made on the system by a subsequent operation.

5thly. Upon the recurrence of smallpox in a family or neighborhood, it is all-important that all individuals, in regard to whom there is any doubt or uncertainty as to the fact of their having been successfully vaccinated, should be subjected immediately to the operation, this being the most certain

means of preventing the spread of the variolous contagion. Your committee have not heard of a single instance of varioloid having occurred in any of the children of the public schools vaccinated by them, notwithstanding the epidemic was prevailing at the time and subsequently.

D. Francis Condie,
Thomas T. Hewson,
J. Wilson Moore,
} *Committee.*

Accompanying this report, there was presented a table containing the name and age of each individual revaccinated by the committee, the number of times each had been previously vaccinated; noting those who had been affected with smallpox, varioloid, or chickenpox; and the appearance of the arm on the fourth and eighth and twelfth days, with remarks on the result of each case.—*Summary of the Transactions of the College of Physicians of Philadelphia.*

On the present state of Homœopathy in Germany. By Dr. A. Mühry, of Hanover.—Homœopathy has undoubtedly taught us, that however high an estimate medical men may have before formed of the healing powers of Nature, these must be rated much higher still. This fact may indeed render us more modest, but need not depress us into spiritless unbelievers. If, on the one hand, we ought to feel ashamed that the curative powers of Nature, aided—by nothing at all—should sometimes achieve as much as we are able to do ourselves, the history of homœopathy has, on the other hand, shown this system to be inadequate to the wants of human society; and has brought into stronger light, not merely the nullities of medicine, but also as a secondary result, its positive utility.

I think I am right in affirming that the history of homœopathy can be better traced in Germany, where the system originated (fifty years ago), and where its development took place, than in England, where it has not been practised more than from ten to fifteen years. It appears to me, likewise, that the changes wrought in homœopathy have not been sufficiently taken into account in your essay; and hence it may here be of some use to point out some of the principal epochs of the system.

Samuel Hahnemann published his 'Organon' of Medicine in the year 1810, but had begun to make his system known before that time. I think with you that he was a sincere believer in the truth of his doctrine. It is but just, however, to

remark, that, at least once previously, he had deceived the world, by selling at a high price, under the name of *pnoeum*, a nostrum which consisted of nothing but *borax*. This is a fact undenied even by his adherents. He had before this published a pharmacological dictionary, and his system was altogether the offspring rather of Pharmacy than of Medicine, properly so called.

Among others, the following retractions and retrogressions have been made in the original doctrines of homœopathy, by various adherents. At first it was deemed requisite to administer medicines only once a week or once a fortnight. At present scarcely a single homœopathist adheres to this; but, on the contrary, now frequently orders them several times daily. A contradiction was also recognized in the assumption of a force-creating power of remedies by attenuation—a greater efficacy in less attenuated remedies. At the present day there is often administered a drop of unattenuated and unpotentialized tincture (termed elementary, or mother tincture.) Originally, the abstraction of blood, emetics, aperients, mineral waters and baths, were all proscribed: now they are often acknowledged as useful. Hahnemann's later doctrines, as promulgated in his 'Chronic Diseases,' met with few adherents: he had become inconsistent, and became more so still when he recommended camphor in very large, unattenuated doses against cholera. His successors became more and more divided, modifying the system in various ways, until its original meaning was almost entirely lost. This became apparent at a congress of homœopathic physicians, which took place at Magdeburg, either in 1836 or 1838. Their confession of faith attests how much reform and reaction the doctrine of numerous homœopathists had suffered. A fraction of the school has even laid aside the name of homœopathy, substituting for it that of "Specific Medicine." This sect is numerous in Germany, in the Grand Duchy of Baden. These still hold fast to the principle, "similia similibus," as explanatory of the curative process, but they no longer give the remedies after the original method. They busy themselves in experimenting with medicines upon healthy persons, but in large doses, and from this they look forward to grand results, which are, however, not perceptible as yet. They likewise attend to the physiological relations of the diseased body, and they have among their body some most able and respectable men. For at least ten years past, this "Specific Medicine" has supported a journal.

We may regard the homœopathists as sincere; but it is true

that their number has augmented less by adoption of the original doctrine than of its modifications. They bear the original name wrongly, being no longer true homœopathists. The majority have even resumed a great portion of the allopathic medicines.

I do not hesitate to say that, although men of worth are to be found among them, there prevails, generally speaking, both within and without the profession, a low opinion of the standard of their intelligence. In Germany, no man of undoubted eminence has ever become a convert to the system. Only once has an instance like that of Professor Henderson occurred: Dr. Kopp, of Hanau, unexpectedly published a volume of "Practical Observations," descriptive of a series of homœopathic cases and cures of his own witnessing. He thus stamped himself a homœopathist. A few years afterward, another volume of the "Observations" appeared, communicating a further series of cases and cures—but of an allopathic nature. The author thus declared himself reconverted, and he has remained so ever since.

With us in Germany there are in almost every largish town one or more homœopathists, who are perhaps consulted in chronic cases, after various methods had been previously tried, and where it is thought that homœopathy, at any rate can do no *positive* harm. True it is, that cures are sometimes thus effected, and these create a sensation; while the cures accomplished by ordinary medicine pass unnoticed. A large proportion of homœopathists have recently adopted the hydropathic method of treatment. I am not cognizant of any town where homœopathy is exclusively practised.

If homœopathy has taught us that our curative control over the course of disease is far below what we rated it at, it has, *à fortiori*, though unintentionally, taught us that our "apparatus medicaminum" possesses less merit than we imagined, and that it need no longer continue as gross and rude as the instrument of an "armentarium chirurgicum" of old. It has, however, at the same time enabled us to mark with greater distinctness those diseases in which our remedies really effect the cure. Such are, for example, intermittent fevers, scabies, syphilis. These it was that first showed the insufficiency of homœopathy; and you will find that in the statistic bulletin of Dr. Fleischmann these diseases are omitted.

One thing certain is, that through means of homœopathy, medicine has undergone, is undergoing, and—as in your treatise you predict—will, in the future, yet further undergo a rigorous scrutiny. It appears to me, however, that rational,

scientific medicine has, in some degree, already passed this ordeal; and if it can never claim the exactness of chemistry and mechanics, it may yet hope, in point of accuracy, to reach the standard attained by modern physiology.—*British and Foreign Medical Review.*

June 22, 1846.

Phrenology.—It is well known that, among other arguments by which Gall upheld his view of the function of the cerebellum, he maintained that the size of this organ is less in castrated animals than in those possessing their sexual organs entire. He does not, however, appear to have made any very exact observations in support of this position, which he principally rested on a comparison of crania. Subsequent observers have not confirmed the statement. Even M. Vimont admits that the result of his experiments was doubtful. Desirous to put the question to the test, M. Leuret caused his former collaborateur, M. Lassaigne, (of whose qualifications as a scientific observer Mr. Noble expresses his ignorance,) to weigh the cerebra and cerebella of a sufficient number of stallions, mares, and geldings, and compare the results. A table of these weights, with that of the medulla oblongata, is given by M. Leuret, for every one of ten stallions, twelve mares, and twenty-one geldings; and the result is that the cerebellum of the gelding is, on the average, *both absotutely and relatively larger* than that either of the stallion or the mare. The manner in which these results are treated by Mr. Noble is, we are constrained to say, rather too characteristic of the general mode in which phrenologists treat evidence that does not suit their purpose. In the first place, not having seen the entire tables, but only the summary of them given in Dr. Carpenter's "Human Physiology," he makes objections which a reference to the tables would prove to be unfounded. His especial ground of refusal to admit the validity of these results, is the smallness of the number of observations, and the consequent uncertainty of the averages; but if he will refer to the tables themselves, he will see that even the *extremes* are as remarkable for the evidence they afford as are the *means*. Thus, the weight of the cerebellum of the stallion is to that of the cerebrum in the stallion, as from 1 : 7·46 in the *lowest*, to 1 : 6·25 in the *highest*, the *average* being 1 : 7·07. In the mare, the proportional weight of the cerebellum is greater, not from the larger absolute size of that organ, (as Mr. Noble would make out M. Leuret to assert, contrary to what he states is the in-

variable fact), but from the smaller size* of the cerebrum; it varies from 1 : 6·93 in the *lowest*, to 1 : 6·08 in the *highest*, the *average* being 1 : 6·59. In the gelding, the proportion varies from 1 : 6·44 in the *lowest*, (excluding one case in which the cerebrum was so enormously developed as to reduce the proportional weight of the cerebellum to 1 : 7·44, although the latter organ surpassed, in *absolute* weight, any other which is here recorded,) to 1 : 5·16 in the *highest*, the *average* being 1 : 5·97. We cannot but think that any unprejudiced person, on comparing these results, must admit that they are sufficient, at any rate, to countervail the vague statements of Gall, even though they may not be sufficiently numerous to establish an exact average of the relation. Phrenologists have too often shown a great horror of *precise* comparisons; but we submit that here is a case in which there can be no serious mistake, the cerebellum and cerebrum being so completely isolated by Nature that no accident or partiality on the part of the experimenter can affect the results in any considerable degree. We are suprised that a man of Mr. Noble's general candor and benevolence of disposition should have descended to the unworthy but easy method of invalidating the results of experiments which do not accord with his hypothesis, by imputing intentional deceit to M. Leuret, as being a known opponent of phrenology. It will be quite time, we submit, to do this, when Mr. Noble, or any other phrenologist, shall have brought before the world a more extensive series of observations made on the same plan, by which M. Leuret's results shall be overthrown. And even then it will be, of course, for the world to judge, from their relative estimate of the two parties, whether the system-makers or the objectors are most likely to be in error. The results of M. Leuret's inquiries have now been before the public for some years; but as we have not heard that they have been thus invalidated, we cannot but admit them as affording important negative evidence with regard to the phrenological view of the functions of the cerebellum.

We have left ourselves no space to touch upon the bearings of pathological observation, with regard to the two views of the functions of the cerebellum. This, however, we the less regret, since the very small number of well-observed cases at present recorded does not afford any decided evidence either

* We have discovered an error of calculation in M. Leuret's table, in regard to the weight of the cerebrum in Mare No. 7. The number (deduced from the weight of the entire encephalon) ought to be 436, instead of 336, and the proportion 6·60, instead of 5·09.

way; it being quite possible, however, to put this evidence in a form that is very favorable to either side, by neglecting all that bears the other way. This Mr. Noble has done in favor of the phrenological view; recording a small number of coincidences between injuries and diseases of the cerebellum, and disorder of the sexual organs, (among others, quoting a case in which the injury was a *flesh wound* in the neck, and in which there was no proof whatever of the cerebellum being affected.) but passing over with very imperfect notice the cases in which there was no such coincidence, or in which the phenomena tended the other way. He gives in detail, however, two cases recorded by Dr. Cowan, which seem to have had some influence with that gentleman—a professed phrenologist, be it observed, but at the same time a man of too philosophical a mind to be a blind partisan of the system, —in leading him to view with more favor the doctrines of Flourens. This forfeiture of allegiance to Gall, on the part of one of his followers, very amusingly excites Mr. Noble's surprise; his conviction of the truth of the system being such, that he cannot understand how any one who has once embraced it can relinquish one tittle of its dogmata. And he devotes some space to the analysis of the details of Dr. Cowan's cases, with the view of bringing them into harmony with Gall's doctrine; in this, however, he seems to us to display more ingenuity than philosophy.

On the whole, then, we are disposed to infer, from the remarkable concurrence between the results of experiment and the data supplied by comparative anatomy, that one function of the cerebellum is to regulate and combine the muscular movements required to perform a large number of our voluntary actions. And if the evidence, furnished by observation of the human species only, should prove to be such as to establish a constant relation between the development of this organ in him and the strength of his sexual propensity, (a position we by no means dispute, our argument being only directed against the insufficiency of the evidence on which it rests at present,) we must regard this as a *superadded* function, not as the fundamental purpose of the organ.

We conclude as we commenced, by disclaiming any hostility whatever to the phrenological system in the abstract; and by freely admitting the *general* coincidence between the indications of human character which are afforded by cranioscopical examination and those derived from a direct acquaintance. But we consider that in building up their system, the followers of Gall have been too disregardful of evidence sup-

plied from other sources than observation of man; and that they have been misled, as to the fundamental question of the connection of the cerebrum with the purely instinctive actions, by their inattention to comparative anatomy, which proves that the cerebrum *cannot* be the instrument of those actions; and have glossed over the important objection which the nondevelopment of the posterior lobes in the lower mammalia and in all the oviparous vertebrata interposes to the location of the animal propensities in them. So far, however, from availing ourselves of these errors, as conclusive arguments against the whole system, we have endeavored, by a new analysis of the propensities and emotions, to show that the facts supplied by comparative anatomy may be brought into conformity with the physiology of Gall; and that the phrenological system may be planted upon a much more secure and extended basis than it has yet possessed; a new and more exact series of observations, however, being required to build it up with anything like firmness and consistency. We cannot regard the question of the functions of the cerebellum as at all fundamental in its character; and can easily understand how a candid phrenologist like Dr. Cowan may, on this point, embrace the views held, we believe, by all the leading physiologists of the day.—*Brit. and For. Med. Review.*

Deposits in the Human Body.—The following scheme includes the various substances capable of occurring as deposits in the human body:

1. Protein compounds.
2. Fats: *a*, cholesterin; *b*, margarin and margaric acid; *c*, olein; *d*, fatty granules of uncertain composition.
3. Uric acid and urates.
4. Salts of lime: *a*, oxalate of lime; *b*, basic phosphate of lime; *c*, carbonate of lime.
5. Ammoniaco-magnesian phosphate.
6. Sulphuret of iron.
7. Bile-pigment.
8. Silica.
9. Various substances of easy solubility, deposited in consequence of evaporation, etc., as chloride of sodium, phosphate of soda, etc.

From one or more of these constituents are formed all the

concretions occurring in the human body. These are arranged by Vogel into

1. Such as are produced from the secreted fluids.
2. Such as are formed in the parenchyma of organs.—*Ibid.*

Case of Rupture of the Bladder.—Mr. Chaldecott records, in a late number of the Provincial Journal, an interesting case of this form of injury. The facts seem too clear to admit of doubt as to the nature of the case. The following is an outline of the history:

A healthy and temperate man, of about fifty, having passed two or three hours at a concert, ran across the street to empty his distended bladder, at twelve o'clock at night; and the night being dark, he did not see a newly erected post, with the top of which the lower part of his abdomen came in violent contact. He states that he fell, and with great difficulty reached his home, which was about a hundred yards distant.

Mr. Chaldecott saw him about half an hour after the accident. He was faint, and suffering severe pain over the abdomen, with desire, but no power to pass his urine. A full-sized catheter was passed easily and completely into the bladder, but no urine escaped. He was placed in bed, and hot fomentations were used to the belly until reaction took place, with which came increase of pain. Twenty leeches were applied, and a gum catheter, but with the same unsatisfactory result as before, not a drop of urine escaping through it.

Mr. Key being sent for, he arrived about eighteen hours after the accident, by which time the symptoms of peritonitis had increased to an alarming degree. The belly was painful, swollen, and tender; the pulse rapid and feeble; and the countenance anxious. Mr. Key passed a catheter, (none having been used for the previous four hours,) and about an ounce of bloody urine came through the instrument. Mr. Key concurred in opinion as to the nature of the injury, and the nearly hopeless prospect for the patient.

At ten o'clock, he had two scruples of liquor opii sedativus, which, after a few hours, produced comfortable sleep; and about four hours from Mr. Key's visit, Mr. Chaldecott passed the catheter, and drew off about four ounces of clear urine. From this time, the pain, swelling, and heat in the stomach and abdomen, gradually lessened, and it was evident that the

bladder now held, as on each introduction the catheter brought away clear urine.

From this time until the 13th, (that is, the sixth day from that on which the accident happened.) all went on well, excepting that a smart attack of gout occurred on the 10th, although the patient had never before suffered one; but on the 13th, from a strong desire to become independent of the catheter, he made straining efforts to pass his water, and he had scarcely passed a tablespoonful, when he felt (to use his own expression) something give way, and a burning pain all over his stomach and bowels, as if boiling water had been poured over them, and the same symptoms of faintness and distress occurred as when the accident first happened.

Mr. Chaldecott saw him within a few minutes of this re-opening of the wound of his bladder, for such, no doubt, had been the consequence of his attempts to pass his water. On using the catheter, not more than a teaspoonful came through the tube. He had now again the symptoms of peritonitis, with the addition of incessant sickness. The same plan of treatment was again adopted, viz., fomentations, leeches, and a full opiate, with calomel.

About four hours after, on the introduction of the catheter, the bladder was again found to retain the urine; and although the peritonitis had increased to a severe degree, the pain, tenderness, and sickness, gradually subsided; and by a patient submission to the continued use of the catheter for a fortnight, no more interruption to the patient's amendment occurred, excepting that the gout, which, under the use of colchicum, had nearly disappeared, again became severe, no doubt from the fresh absorption of urine which this second accident had permitted to escape into the cavity of the peritonæum. But by this time it was presumed that the wound in the bladder had closed with sufficient firmness to allow the patient to yield to the desire to evacuate his urine without any straining efforts.

Two months have transpired since the commencement of the case, and he feels no other inconvenience from his accident excepting a dragging sensation over the abdomen, chiefly on the right side, which is much increased when he attempts to lie upon his left side.—*London Lancet.*

THE WESTERN JOURNAL.

NEW SERIES.—VOL. VII.—No. III.

LOUISVILLE, MARCH 1, 1847.

MEDICAL CONVENTION IN PHILADELPHIA.

At the close of our last number, we made a passing reference to the approaching National Convention, in which a fear was intimated, that it would not be productive of the good which some of our brethren anticipate. Lest this should be construed into an expression of indifference or discouragement, we are led to recur to the subject.

Our apprehensions are threefold:

1. That all the schools of the United States will not send delegates, and that those who do, will not carefully discuss and set forth to those who represent them, their *desiderata;* without which there can be no adequate ground of hope, that what the convention may recommend, will be ratified by a sufficient number of our institutions to produce the desired uniformity.

2. That from the vast geographical extent of our country, and the consequent diversity of conditions under which our schools are placed, it will be difficult to establish uniformity. This will especially prove to be the case, if their representatives should not come together in a spirit of courteous and patient forbearance. If they do, much, though doubtless not all that is desirable, may be accomplished.

3. That the delegates of our medical societies will be overanxious to regulate the polity of our schools, of which most of them must ne-

cessarily know much less, and be less qualified to judge correctly, than those who have experience as teachers. Not a few of the imperfections which our medical institutions present, result from the state of society in which we live, and cannot be corrected by the convention; while others are the consequence of their number, the blame of which rests on our respective State Legislatures.

We foresee still other difficulties and embarrassments to the action of the convention, but they are of lesser magnitude, and may be obviated, provided its members shall consult together in a right spirit—that is, with a fixed determination not to part, till they have laid the foundation of an *American* profession. It is quite time that this was at least attempted. At present, there is as little intercourse and sympathy, between the physicians of the different States of the *Union* so called, as between those of the different kingdoms of Europe. All this is wrong, and should if possible be corrected. The medical profession is one throughout the world, and especially should its members in the same confederacy of States, compose one brotherhood. As a means of promoting this interesting object, and at the same time giving an impulse to medical inquiry and improvement, it is to be hoped, that the convention will not adjourn without taking measures to bring about, in some central city, a yearly meeting of physicians, surgeons, obstetricians, druggists and dentists, open to all who legitimately belong to these respective departments of the profession. Such meetings could not fail to call forth many valuable papers and reports of committees, the reading and discussion of which would be a source of both pleasure and improvement; while our physicians generally, would acquire a new impulse to observation and experimental research, and the publications of the association would elevate the character of our profession.

Our readers will recollect that the meeting in Philadelphia will be an adjournment of that held in New York in the month of May, 1846. The minutes of that meeting are now before us, and we observe that several committees were appointed, to make reports on the organization of a national association—on the primary education of students of medicine—on a higher standard of graduation—on state boards of examiners for the degree of M.D., instead of its being done by the professors—finally, on a uniform system of medical ethics. All these are important topics, which it is hoped the different committees will thoroughly investigate. There was also a committee, of which

Prof. Knight, of New Haven, was the chairman, appointed to prepare and publish an address to the physicians of the United States, explaining to them the objects of the proposed meeting in Philadelphia, and urging their cöoperation. From their address we make the following extract:

"It remains to be seen whether these desirable objects shall be accomplished. It is obvious that this can be done only by general and united exertion. All partial or divided action will be unavailing. It is equally true, that whatever is done must be accomplished by medical men themselves. In some countries, the interests of the medical profession, like others of great importance to the community, are regulated, sustained and protected by public law. In this country, no general law, even if it were desirable, can ever exist. In many of the States, no laws upon this subject have ever been enacted; in several, where they have formerly existed, they have been repealed; and in those where they still remain, there is a general complaint of their inefficiency. In this state of things, the only resource which remains is for medical men to establish and enforce among themselves such regulations as shall purify and elevate their own body, and thus more fully command the respect and confidence of their fellow men. The proposed association, if it becomes general, may be the means of accomplishing much of this good work. The opinions of such a body of the most respectable members of the profession, enjoying the confidence of their brethren and of the public, freely expressed after full consultation and careful deliberation, although not clothed with the authority of law, will still command respect, and, for the most part, compliance. A public opinion in regard to the subjects decided upon will be created, which will be more controlling than law. It is by creating and sustaining a sound and healthy public opinion, that the association will prove most beneficial."

We shall only add, that the University of Louisville has determined to send a delegation, consisting of Professors Drake, Cobb, and Yandell.

DISTINCTIVE CHARACTERISTICS OF THE FEMALE.

We thank our friend Prof. Meigs, of the Jefferson Medical School, for a copy of his lecture on a subject which he has studied with so much care and interest. It was delivered about the middle of his course, and published at the request of his class. Its object is to show that those who would comprehend the nature and treatment of the diseases of woman, must first make her peculiarities of physiology a special study; and to aid in this, the learned professor, in his own peculiar

manner, has presented many of her more striking characteristics, corporeal, intellectual and moral. After speaking of some of the social influences of man and woman, he breaks forth in the following quaint and animated style:

"Now, are these high considerations? and yet from what lowness do they spring! Yea, even from the germiferous tissue of the female. It is from her stroma that issues the generic as well as the genetic force. What a wondrous law! what a wondrous power is that which maintains each genus and species pure and unalloyed as when it issued from the Creator's hand! So great, so powerful, that each of them is set, as it were, within a magic ring, out of whose charmed round it can never stray; so that no wild and horrid passion, no brutal lust, no insane desire can break, much less change or abrogate the law that set forth the primordial models, 'each after his kind,' of the species of the globe. For notwithstanding the countless myriads of generations that from the remotest ages have reproduced individuals more numerous than the sands of the shore or the stars in the firmament, each blade of grass, still obedient to its generic law, still imitates exactly its primitive pattern; and every elephant or worm—every eagle that soars to the sun, or sparrow that chirps in the hedge—every man and every woman go steadily, like the current of a river, down time's flowing stream, ever ending, ever beginning, ever changing, yet immutably the same! I repeat it, the generic power is launched from the ovarian stroma. That is the *sole animal concrete* that is capable of producing yelk matter. Yelk matter is germinal or generic matter—I should rather say, reproductive matter. The male tissues are nowhere endowed with the power of this yelk production, and the sole elaboration of the stroma of ovaries is germ elaboration.

"Let me pronounce three words in your ear: *Stroma is sex.* In pronouncing these words, then, I wish you to appreciate the importance of that tissue—it was for the elaboration of germs that sex was appointed to the female, the human Zygozoaire. See, then, in this unobvious, apparently vile lump of animal texture, in the inner court of the temple of the body, the ark that contains the law, which keeps the genera unmixed, from age to age. How *can* you study this subject sufficiently?"

We are tempted to extract his closing paragraph, in the hope that it may inspire some of our young readers, while many of the older will no doubt find themselves in full sympathy with its ardent and amiable author:

"I do not believe in a physician who knows only calomel and rhubarb. I would have you fill your souls with knowledge; I would

have you bathe in it as in an ocean. Were I young again, and could I appreciate, as I now in some degree begin to do, the beauties of learning, I could not cast away as I have done a half century of time; but I would grow pale by the reflection of the midnight lamp, and I would never be satiated until my soul were satisfied with the fullness of knowledge. For what are we in the general but erring and curious inquirers? and does not the most highly cultivated intelligence to be found among men leave them at last, even the most gifted among them, blind, groping, feeble worms of the dust? What should be our motto and our cry, from the lowness of the human nature in which we lie groveling? *Excelsior! Excelsior!*"

INTRODUCTORY LECTURE ON PRACTICAL EDUCATION IN MEDICINE. BY DR. WATSON, OF THE NEW YORK HOSPITAL.

The object of this lecture is to magnify the importance of hospital instruction, in comparison with lecture-room and dispensary teachings; and its author has certainly made out a strong case. According to his observation, many young gentlemen commence the practice of both physic and surgery with very little dexterity, for want of practical opportunities. In speaking of the hospital to which he belongs, he says:

"A couple of youths, fresh from their studies, were directed here, many years ago, to apply cupping-glasses to the temples of a negro woman. The cups were at first applied moderately heated; but not adhering, they were held over the lamp until nearly roasting hot, and then applied anew. Still they would not stick. The process was again and again repeated, all to no purpose. The poor woman roared, and the poor lads labored, until the superintendent of the hospital, attracted by the noise, at length relieved her from her tormentors—archly observing to them as he entered the ward, that 'they had better practice on each other until they had learned how.'

"Not long since, as is my frequent custom, I requested some of the young men accompanying me through the wards, to examine and report upon the nature of an inflammatory swelling. The first that came forward was, as I afterwards ascertained, one who had just passed the ordeal of his examination. He could detect nothing peculiar in the case. The second was a student of scarcely a year's standing, who had previously examined similar cases. He pronounced the swelling to be an abscess already in need of the lancet. I allowed him to apply this, and, to the no small mortification of the other, he gave exit to a large collection of purulent matter.

"The practice of our profession is made up of details like these,

and a knowledge of these details, be assured, is never to be reached through lectures or deduced from abstract principles. The physician or surgeon, worthy of the name is such only so far as he is able to turn to advantage those innumerable and ever changing little circumstances of daily experience which language cannot teach. The senses of the student, as well as his intellectual faculties, require to be thoroughly and systematically indoctrinated: The study of principles may give employment to the mind, either in the closet or the class-room; but the hospital and the bedside are the schools for the senses. I had almost said, the only schools; there are others."

All this is true; but we must not forget that he whose knowledge is made up of practical details, is at last but an empiric. In the West and South, where students of medicine from the beginning are present (we cannot say always study) in the offices of their preceptors, it frequently happens, that they are better versed in the practical than the theoretical departments of the profession—can *do* many things which they cannot explain.

According to Dr. W., the hospitals of our eastern cities are very much neglected. But why are they? We fear that students are not so much to blame as the visitors, physicians and surgeons who manage those public charities. In the city of New York, there is one hospital, and five or six hundred students. Now, of what possible advantage would it be to these young gentlemen to crowd the wards of that establishment? They could neither see nor hear. Let an amphitheatre be erected contiguous to the wards, and a selection of patients daily brought into it, and there will be no lack of clinical students. As to serving in the hospital, of course but a small number could have the opportunity.

INTRODUCTORY LECTURE BEFORE THE BALTIMORE COLLEGE OF DENTAL SURGEONS. BY DR. WESTCOTT.

It affords us pleasure to take notice of a lecture of this kind, in connection with those of the general profession. The ignorance and neglect of physicians and surgeons first made the diseases of the teeth a specialty, and created a class of operators as little acquainted with the principles of our science, as physicians and surgeons were with the manipulations of dentistry. Having been made a special branch, it is likely to continue such; and the question now is, shall it be

rescued from the hands of pretenders and mere artists? We go in for its rescue, and shall at all times lend a hand towards its elevation. Having had some experience in both dental and ophthalmic surgery, we have no hesitation in saying, that the duties of the former require an equal knowledge of science, and greater dexterity of the hand, than those of the former; and still, while the scientific oculist is admitted to full rank in our profession, the scientific dentist is shut out. This is abundantly absurd, and we hope the time is not distant, when the learning, science and elevated bearing of those who devote themselves to that specialty, will redeem it from its congenital degradation. To this end, the dental colleges of Baltimore and Cincinnati cannot fail to contribute an abundant influence. Both have our best wishes.

The lecture of Dr. W., both in its manner and matter, will bear a comparison with the best introductories of the season; but we have extended our remarks so far as to have room for a single extract only:

"For some time, the scheme of establishing a college expressly for this purpose was regarded by the community, and even by many of the profession, as chimerical. But thanks to the untiring exertions of its enterprising founder, the enlightened policy of the State Legislature, and to the cheering countenance and liberal support of the citizens of Baltimore, the experiment has been fully and successfully tried; the practicability and the great public utility of such an organization, have been fully proved; and the objections arising from the fears of friends, or the ill-boding prognostications of enemies have been most triumphantly refuted. This experiment has not only been successful in itself considered, but it has become the corner-stone of a new and more enlightened policy, both in regard to the public and the profession."

INTRODUCTORY LECTURE ON LIFE. BY PROFESSOR DARRACH.

The Professor of the Theory and Practice in the medical department of *Pennsylvania College*, in selecting a topic for the opening of his course, seems to have assumed that his pupils were further advanced in the study of science than that class of auditors generally is. Its abstruseness is suggested by its very title—LIFE. After contrasting organic with inorganic bodies, he proceeds to a classification of the former into three divisions—Vegetables, Animals, and Man; the latter deriving his claim to a separation from all the rest, by the possession of a soul. In sketching the characteristics of these di-

visions, we do not observe anything particularly new; but many parts are executed with spirit, and some passages are eloquent; while, although a few are recondite, and even border on the obscure, none are heavy or unreadable.

AN ESSAY ON ABSCESS OF THE JAWS. BY DR. HULLIHEN, OF WHEELING.

This little essay, by one of the most scientific dental surgeons of the West, appears to be well written, and relates to an important disease. We have looked over it with interest, but it is too exclusively special to afford anything, which extracted, would be interesting to our readers generally.

LETHEAN VAPOR.

We lately had an opportunity of witnessing the extraction of teeth from two gentlemen who had inhaled this vapor. They were patients of Mr. Goddard, and Mr. Somerby was present and assisted.

Case 1. A vigorous man, in or approaching middle life. A short time before the inhalation commenced, his pulse was 70 in a minute; full and strong. When about to be given, though he was not apparently alarmed, it rose to 112. After a short inhalation, less than a minute, the tube fell from his hand, and the operation was commenced. His pulse had then risen to 144. His pupils did not become dilated. From difficulty in the operation, it proved rather tedious; but he remained motionless, and made no manifestation of pain. In about two minutes from the time he passed into a state of insensibility, he suddenly emerged from it. His pulse was then 120, and in a quarter of an hour had fallen to 70. His intellectual faculties and feelings were quite natural immediately on awaking. He was unconscious of any pain, but said he had dreamed of some kind of crash.

Case 2. A young man had two fangs of different teeth extracted. Pulse before breathing the gas, 88, and increased but a few beats afterwards. No dilatation of the pupil. After the loss of the first fang, was aroused, and said he had felt the cutting of the gums, but not the extraction. Inhaled the gas a second time, and during the operation which followed, stretched himself out, and acted as he might have done if the vapor had not been breathed. On recovering, however, he declared that he had not felt any pain. The sensorial functions seemed to have been asleep, but the excito-motory awake.

THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

EDITORS.

DANIEL DRAKE, M.D.,

PROFESSOR OF PATHOLOGY AND THE PRACTICE OF MEDICINE IN THE MEDICAL INSTITUTE OF LOUISVILLE:

LUNSFORD P. YANDELL, M.D.,

PROFESSOR OF CHEMISTRY AND PHARMACY IN THE SAME:

THOMAS W. COLESCOTT, M.D.

CONTENTS

OF NO. IV.

ORIGINAL COMMUNICATIONS.

ESSAYS AND CASES.

ART. I.—An Essay on Eclampsia Parturientium, with Cases and Remarks. By JOHN DAWSON, M.D., of Jamestown, Ohio. - - - - - - - - - 277

ART. II.—Notes on Medical Matters and Medical Men in Paris. By DAVID W. YANDELL, M. D., of Louisville, Ky. - - - - - - - - - - 308

ART. III.—A Case of Poisoning by the Seeds of the Datura Stramonium. By Dr. D. G. GREGORY, of Rutersville, Texas. - - - - - - - - - - 333

ART. IV.—A Case of Spontaneous Combustion. By THOS. S. FOSTER, Student of Medicine in the University of Louisville. - - - - - - - - - - 334

BIBLIOGRAPHICAL NOTICES.

ART. V.—Materia Medica and Therapeutics; including the Preparations of the Pharmacopœias of London, Edinburgh, Dublin, and the United States; with many new Medicines. By J. FORBES ROYLE, M.D., F.R.S., Professor of Materia Medica and Therapeutics, King's College, London. Edited by JOSEPH CARSON, M.D., Professor of Materia Medica in the Philadelphia College of Pharmacy. - - - - - - - - 335

ART. VI.—A Practical Treatise on Inflammation, Ulceration and Induration of the Neck of the Uterus; with Remarks on the Value of Leucorrhœa and Prolapsus Uteri as Symptoms of Uterine Disease. By JAMES

Henry Bennet, M.D., Licentiate of the Royal College of Physicians, etc., Paris. Philadelphia: Lea & Blanchard: 1847. - - - - - - - 341

Art. VII.—The Principles and Practice of Ophthalmic Medicine and Surgery. By T. Wharton Jones, F.R.S. Edited by Isaac Hays, M.D. Philadelphia. - - 346

Art. VIII.—The Pathological Anatomy of the Human Body. By Julius Vogel, M.D., Professor of Clinical Medicine at the University of Giessen. Translated from the German, with additions, by Geo. E. Day, M.A., etc. Philadelphia: Lea & Blanchard: 1847. - 348

SELECTIONS FROM AMERICAN AND FOREIGN JOURNALS.

Sulphuric Ether—Letheon. - - - - - - - 349
On the results of Lithrotity Methodically Applied to Suitable Cases. - - - - - - - - - - - 354
Statistics of Miasmatic Fevers treated in 1846, Norfolk, Va. 355
Action of Sulphate of Quinine on the Spleen. - - - 358
Fever in Ireland. - - - - - - - - - - 359
Treatment of Aneurism by Compression. - - - - 359
Child born alive at the fourth month and a half of pregnancy. 359
Treatment of Epistaxis by Insufflations of Alum. - - 359
Death of Dr. Bostock and Dr. John Thompson. - - - 360

ORIGINAL INTELLIGENCE.

Kentucky Institution for the Blind. - - - - - 361
Examinations for the Doctorate in the University of Virginia. 363
University of Louisville. - - - - - - - 364
Medical Convention. - - - - - - - - 364
Bulletin of Medical Science. - - - - - - - 365
Resignation of Professor Warren. - - - - - 366
Private Medical Instruction in Louisville. - - - 366
Bloody Vesicle of the Vagina. - - - - - - - 367
Books Received. - - - - - - - - - - 368